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**Medical Education and the Minority Report  
of the Committee on the Costs of Medical Care\***

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I.

One's first reaction in seeing a symposium on the report of the Committee on the Costs of Medical Care announced in a program of the Association of American Medical Colleges is an opinion that the discussion of a medico-economic problem hardly belongs into a meeting which deals essentially with questions of medical education. Such, also, was my first reaction when asked to write this paper. On second thought, however, I have learned to think differently. I find history repeating itself. When the committee undertook its activities, it was aware only of the medico-economic aspect of the question and, therefore, called itself the Committee on the Cost of Medical Care. As its investigations progressed, however, it soon became evident that the cost, that is, the financial cost of medical care, was involved in so many other costs—social, educational and psychological—that in fairness to its own responsibility, the committee found itself forced to change its name and speak of itself as the Committee on the Costs of Medical Care. Just so it becomes obvious on second thought, that the entire report of the Committee on the Costs of Medical Care, with its special studies, its majority report and its various minority reports, have so profound a bearing on medical education, that no significant discussion of any phase in the making of a doctor will hereafter be possible unless such discussion be studied with reference not only to the factual data assembled by the committee but also with reference to the conclusions which have been formulated. I, for one, believe firmly that the committee's findings will in the course of time seriously affect the educational policies and practice of our schools.

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## II.

In attempting an evaluation of the minority's attitude toward the cost of medical care with special reference to its bearing on medical education, it would be very easy to single out any one of several studies which the committee has made as a text for comment and as a center around which one's thinking might revolve. I have in mind such special studies as the one dealing with the adequacy of medical care or the one dealing with family income. These special studies all represent accumulations of data and collections of viewpoints which contain lessons of far reaching importance for curriculum construction as well as for the formulation of administrative policies. It might be better, however, that as a first effort an evaluation of the general trend of the minority's thinking be contrasted with that of the majority in order that from such generalized viewpoints one's mind might gradually be directed toward the consideration of details, thus letting these details fall into their proper places in a constructive program for future elaboration.

Suggestion for change in our educational policies must be evaluated in the light of the objectives in medical teaching. A course or a teaching technique which in itself might be quite valuable need not necessarily be adaptable to the needs and purposes of medical teaching. It seems to me that this principle is often lost sight of in the flood of recommendations which have come to the schools of medicine from diverse sources during the last few years. It is not my purpose here to discuss these or to evaluate them, and, therefore, we need not stop to examine specific instances, but it is abundantly clear that the enthusiast in a special field serves a much more useful function as a stimulant to an individual inert dean than as a guide to all deans. It happens very frequently that the enthusiast would make his particular specialty the turning point around which the entire medical curriculum should revolve. In the particular case under consideration it is important, therefore, to allow one's calm judgment to enter into the discussion of those phases of medical economics and its allied interests before one attempts a radical reconstruction of the medical curriculum with the newer viewpoints in mind.

It is clear that the new factor which the report of the Committee on the Costs of Medical Care would have us take into consideration in our considerations on medical education is the social viewpoint. All through the factual reports and the conclusions there sounds the basic motif of the social service of medicine. We are told that the times have changed, that society is undergoing a constructive revolution, that all of the fundamental interests of mankind are centering in the group rather than in the individual, that economic considerations can no longer be excluded from even

the most abstruse and abstract discussions of human society. The corollary is drawn more or less explicitly in many places that if medicine does not desire to be left behind in this onward march of progress and constitute a rear guard of relatively little importance to human society, it must hurry to fall into step. We are told just as emphatically that medicine must relinquish its leadership in the many questions pertaining to welfare in which it had formerly been considered the oracular dictator and that to sociology and its kindred sciences the leadership must definitely be entrusted. Socialized medicine, state medicine, economic medicine, are, therefore, to become the salients which the entire science of medicine must push out into the battlefield on which it will have as its opponents medical conservatism, ignorance of hygiene, personal self-concern and super-individualization.

Such, in brief, is the picture of epic dimensions which the report has painted for us, disquieting enough to our present self-complacency, I must admit, and ominous with its possibilities of suggested revolutionary change. The contrast which the picture evokes between our present smugness and our prospective restlessness, if these viewpoints prevail, is certainly striking enough to disequilibrate our present self-satisfied minds. It seems clear to me that a new factor has been introduced into our thinking about medical education by this suddenly developed avalanche of intermingled facts and fancies, theories and opinions, certainties and probabilities. And while it is true that in the precipitate rôle of the avalanche, morainal deposits of discarded thought will mark the path of progress, it is also probably true that a sufficiently large mass will crash thunderously into our medical schools to demolish many a cherished educational structure from the ruins of which a new curricular and administrative edifice will have to emerge.

But I am not so sure that all this will take place with the precipitateness with which our social enthusiasts would have us accept their recommendations. Even if all of this does indicate a turning point in medical educational history, the turning may take place with majestic leisure and with an unobtrusiveness that will insure a well considered acceptance instead of a stormy commitment to the newly emergent views.

In the past, medical education has followed the lead of the experimental physical and biological sciences. The research laboratory has outrun medical education. Just as there is a social lag in accepting the findings and conclusions of the laboratory, thus affording the lay mind an opportunity for evaluating the new evidence and the new viewpoints developed in the laboratory, just so medical education has waited until it felt safe in incorporating the laboratory results into its program. In the present instance, however, the situation is quite different. The social sciences allow of no

such popular lag. Frequently these sciences formulate conclusions which are in remarkable accord with the radically progressive popular mind. The common people, as that term is understood, seem to realize that they are entitled to no special opinion on the intricate details of psychology or physiology, of anatomy or bacteriology, but who is there who will admit of any limitations in the formulation of his judgment on matters of politics, economics, government or welfare. It is, therefore, in this respect that a danger threatens medical education. We are asked to accept the social conclusions of the many groups interested, more or less remotely, in medical practice, medical care and medical education with the same precipitancy with which the popular mind is apt to form its conclusion on them. And so today, we find the social agencies, the economist, the political leader and the accountant, pressing for a hurried integration of the committee's conclusions into medical educational programs and impatiently expressing their amazement at the conservatism of the medical educator who, so it is alleged, has buried his head in the sand and insists that human nature is still the same and that human protoplasm has given evidence of no significant alteration resulting from the social revolution. The viewpoint is not considered tolerable that the one persistently unyielding and unchanging reality in the popular hubbub is that very reality with which the physician has to deal, namely, the constitution of those human beings who have so suddenly bestirred themselves into such higgledy-piggledy activity.

### III.

If there is one outstanding reason why the viewpoint of the minority rather than that of the majority should be considered thoughtfully in its interpretations of the social phenomena surrounding us, it is to my mind this, that the minority report, while recognizing the reality of the dynamic forces tending to cast human society into new molds, still recognizes the essential unchangeable mass and unity of that human material out of which the new social forms are to be constituted, while the majority report, to my minds, is inclined to ignore that unity and unchangeableness. The minority, I believe, has shown a deeper insight into the persistent identity of human nature in the midst of change. It has laid stress on that identity and it is for that reason more in accord with the ideals and aims of medical practice and, therefore, also with the objectives in medical education. I make bold to suggest three touch stones by which the soundness of this thesis can be tested.

Let us take, first of all, the personality of the physician and the corollaries thence resulting. It is easier to speak of the viewpoints of the minority if that viewpoint be contrasted with that of the majority of the



committee members not only because the study of contrasts aids in clearer thinking but, in this case, particularly because the minority did not have the time in submitting its report to formulate an exhaustive and comprehensive presentation of its viewpoints, but had to content itself with such flashes of comment as would bring its protests and denials into immediate conflict with the assertions of the majority. The majority has insisted in discussing the personal character of the physician and, therefore, the personal relation between patient and physician that there is nothing necessarily mysterious concerning this relationship. That on the strictly professional side, it includes chiefly the safeguarding of privileged confidential communications and "the continuing mutual responsibility," while "the business relation between patient and physician is not considered a necessary part of the personal relation."<sup>1</sup> The majority states, "On the therapeutic side it (the relation between patient and physician) is capable of completely objective analysis. As to those phases which are not strictly medical, it is of a piece with all satisfactory human relations involving as they do mutual patience, sympathy, understanding, and confidence."<sup>2</sup> The minority on this point places its opinion in rather violent contrast to all which has just been quoted. It says, "The character and personality of the physician is a major factor in its development (that is, in the development of the personal relationship) and in process of time and continued contact as patient and physician a friendship and intimacy develop that assumes priestly characteristics on the part of the physician—the characteristics of the confidant and adviser in the most intimate and personal relationships. . . . It is an individual relationship, the product of character and personality and cannot be transferred to a group or fostered by group practice."<sup>3</sup> From these two quotations, it is obvious that on a rather fundamental phase of medical practice the majority and the minority are in a rather emphatic contrast. While the majority insists that "on the therapeutic side the personal relationship is capable of completely objective analysis," the minority insists that that relationship is the product of personality and character of the physician which certainly no one would as yet be foolhardy enough to pronounce as being fully susceptible of completely objective analysis. Regarding the phases which are not strictly medical, the majority insists that the personal relationship "is of a piece with all satisfactory human relations," while the minority considers that relationship as being *sui generis* and specific, possessing the priestly characteristics of the confidant and adviser in the most intimate personal and family relationships.

As these two viewpoints are in violent contrast with respect to medical

1. Medical Care for the American People, p. 39.

2. Medical Care for the American People, p. 41.

3. Medical Care for the American People, p. 169.

practice, so I subsume they are in violent contrast with respect to two theories of medical education. We may shape our educational program on impersonal or personal administrative procedures; on a theory of professional aloofness or of faculty camaraderie; on the basis of educational direction through elaborate enactments to meet all academic contingencies of the class or through intimate personnel studies of the highly individualized medical student. Whatever the school's policy in these various respects may be, the institution will soon assume a modified educational physiognomy that will show either the lines of academic dignity joined with rigor and sternness or the lines of benignant kindly helpfulness joined with administrative plasticity and humaneness. Certainly, the school's educational policy will conform to either one of these two pictures irrespective of our preferential evaluations. When one bears in mind, however, the stresses that have been laid on the introduction of graduate methods into our medical teaching, the progressive emphasis which we are laying on individualized traits and capacities, the heavy accent which we have thrown on the development of educational and psychologic dissimilarities rather than on similarities, and when one bears in mind, furthermore, that all the basic sciences, including psychology, physiology, biochemistry and genetics, are laying increasing stress on each individual's unique morphology and function, then, surely, it would seem to me that the minority's interpretation of the personal relationship is closer not only to the deeper understanding of the human nature involved but also is more in conformity with the most progressive and forward looking thought. By this same line of reasoning, it seems to me, the conclusions of the minority form the basis of a safer and more humane policy for our schools of medicine.

## V.

A second general criterion for evaluating the attitudes of the majority and the minority reports is the procedure for medical practice advocated in each. Both of the reports emphasize the importance of specialization in medicine but they differ in their approach to the question of specialism by reason of the fact that the majority report sees in some form of group practice the principal remedy for most of the ills arising from the medical practice of today; hence, it must advocate a form of specialism. What other need would there be of group practice? By reason also of the fact that the minority report stresses the unique position of the practitioner and ambitions his exaltation to his former position of dominance in medical thought, it, too, must advocate specialism, but as an aid to the practitioner. The majority report wishes to force the growth of specialism in order that group practice may more effectively flourish, or, perhaps, more justly it wishes to advocate specialism to make possible the more extensive growth

of group practice. The minority report advocates specialism as the direct outgrowth of the needs of medical practice. Viewing such motivation as far as possible from an objective and practical standpoint, I cannot but fear that if the viewpoints of the majority prevail, a wide door will be left open for those abuses in specialism which medical educators have had ample reason to deplore. We have not as yet sufficiently developed the influence of our special examining boards to offset the many incentives to false claims for recognition of the specialties which financial greed, uncontrolled ambition and charlatanry have inspired and fostered. In almost every city, and, perhaps, in rural areas as well, there are individuals whose claims to specialization rest on extremely tenuous and wobbly foundations.

And, now, that we are suggesting a remedy for the inadequacy of the medical care of the nation, all that we have to offer is a remedy which, if it is accepted as generally as an universal remedy should be accepted, will create an enormous number of new opportunities for those whose medical career is already characterized by insincerity, hypocrisy or incapacity. Is it wise, I ask you, for an educational agency to foster such opportunities?

The treatment of specialism in the minority report is, as might be expected from a document which had to be hurriedly thrown together, sketchy and incomplete. But this much stands out with emphasized obviousness, that the minority not only recognizes the claims of specialism, but recognizes, furthermore, the only method by which self-respecting specialization in medicine can develop. On other occasions I have had ample opportunity to call attention to the analogy between the growth of organization and the growth of a profession. The organs of an organism arise in response to the internal and external factors interplaying during organic development at the given moment. They arise not in response to merely extrinsic forces nor merely intrinsic forces. A profession might well heed the analogy. When medicine, in the process of the natural growth which it experiences through study and research, has prepared the material for a new specialty, then, and then only, should the specialty become recognized. There should be nothing artificial about all of this. There should be no teratological excrescence by reason of distortion from external forces. There should not be any undue pressure from nonmedical sources, and lest I be accused of begging the question by using the word "undue" and raising the question as to who might be the judge of the undue pressure, the answer can be made simple and direct, that medicine should be allowed the same measure of self-determination as a profession which is claimed by each of us individually with reference to our personal lives and by groups of men and women properly organized in their respective spheres of interest. Medicine should remain medicine no matter how much sociological or political or organizational pressure is brought to bear on it.

Has all this a bearing on the educational and administrative policies of our schools? The answer to this question is too obvious to need elaboration. With a saneness of view and a seriousness of purpose, that is monumental in its dimensions, our schools of medicine have, for the most part, stood firm on sound educational principles in their development. When only a relatively few years ago it became obvious that the normal evolutionary processes in the profession and in the educational activities of the profession had produced spontaneous growths which by their metastases threatened to imperil the medical educational world as a whole, it was medicine itself that effected its self-imposed cure. And today through a strengthening of its self-critical faculty, it is more exacting than ever in its demands that its every organ should yield that measure of effectiveness which will most successfully integrate it into our medical school system. No extrinsic force was needed and we have reason for firm hope that the future will not be unfaithful to the past. As far as I see, in our schools we do not need the infiltration of such social and economic domination as is suggested by considerations foreign to medicine. The medical schools have developed a sane attitude toward specialization. There is not one of them but gives each of its students an insight into the aims and limitations of each specialty nor one that withholds from the students that measure of information concerning those specialties which enable the young man to choose his career within the limitations of the profession as a whole. When the opportunities are available, the individual is ready to supply the needs of the moment. The medical schools have stressed the thought that specialization should be self-imposed on the basis of a broad much-embracing foundation and have withheld approval of policies which would encourage too early a devotion to the specific demands of any of the specialties. The medical schools have, for the most part, safeguarded the real concept of a specialty as a special science and art within the general science and art of medicine. If we are now counselled to change all this and to begin specialized instruction in an earlier year, I cannot but fear that the social demands for group practitioners may be satisfied but at the cost of too great a sacrifice, namely, the sacrifice of the physician's understanding of the organism as a whole. At the sacrifice of the physician's understanding that the man is sick, not his heart or his liver. The implications of all of this are too obvious to need elaboration.

Our objectives in medical practice are much involved in all of this. Undergraduate medical teaching, I assume, is to be directed toward the fashioning of the physician, not of the ophthalmologist or of the diagnostician. I assume, furthermore, that in schools of medicine the undergraduate courses should contain enough inspiration for a limited number who by

virtue of their own internal interests and drives tend toward the more exhaustive pursuit of studies in special fields and toward restricted practice. If the factual data presented in the reports of the committee have taught us any lesson, they have shown us that by far the larger number of individuals seek medical advice for conditions which should well be within the capacity and interests of the general practitioner to treat. And so the minority has made its plea for safeguarding the position of the general practitioner in the practice of medicine and has thereby expressed its conformity with an educational principle that has prevailed in medical schools. I fail to see that the majority has given an adequate reason for a radical change in such a policy.

## VI.

As a third touchstone for an evaluation of the content of the two reports, I would like to review their attitudes toward the adaptive power of medicine, to the social forces now at work in our nation. I wish to stress again that both reports emphasize the necessity of such integration. They do so, however, as I understand them, on the basis of different motives. The majority report demands what is popularly designated as the socialization of medicine. The minority report stresses the adaptive power of medicine in the face of the social forces of the present. The majority report wishes to recast medicine; the minority report is content, so it seems to me, to admit medicine's acclimatizing power to the present needs. It would be too long drawn out a discussion if I were to attempt to quote the numerous passages which might illustrate this thesis. The majority report has attempted to find a place for all of those purely financial considerations which have grown with weed-like profusion in the untilled field of medical economics. It has shown us the methods of self-organization; has borrowed the terminology of industrial management and applied them to medical practice; has taken over the practices of marketing and bargaining with all the social and psychological phenomena associated with advertising competition and commercial rivalry, and has, finally, read us a lesson on the importance of introducing business methods into the practice of medicine. Now much of this is excellent and at least suggestive, but from an educational viewpoint, I am wondering whether we are doing a greater service to our students if we stress the cost per hour per patient basis of medical practice, in holding before our classes the ideals of professional excellence, or whether we make the appeal on the basis of the non-purchasable value of human life and human happiness which it is the physician's prerogative to promote and foster.

Two considerations here present themselves. The first with regard to the adaptive power of medicine, and the second, with regard to the value

of medical practice. Medicine has always been adaptive. It has faced with more or less success its own position in the scheme of things when its own ignorance of the basic sciences was a handicap to the healing art, just as it is facing the conditions today when a deeper insight into the scientific implications of knowledge has imposed on the practitioner a more difficult obligation. To yield to the social pressures of the day, is, I believe, over-adaptation on the part of medicine. The organism may die from inertia in its adaptation just as it may die from over-adaptation. The latter, sooner or later, means the identification of the organism with its environment and when that identification is complete, the organism is already dead. Just so, medicine may adapt itself to sociology but it cannot become sociology except at the price of its own life. And as for the financial value of medical practice, we need only point out that dollars and cents and good health are incommensurables; that a physician's service and the restoration of an individual to health are measurable by no common standard. The physician receives neither wages, salary nor a stipend; he receives an honorarium. It is only on such a philosophical basis that the sliding scale in medical practice is justifiable and entirely defensible.

Again, our educational policies are seriously affected by the views which we take on this important question. To be sure, today no one could any longer defend the complete aloofness of medicine from social and economic thinking. No one could defend the exclusion from the medical curriculum of all reference to social implications of medical practice. Our students must become increasingly aware of their positions in social organizations and of the importance of integrating health activities and medical care into community welfare programs. They must be taught to be leaders not only in scientific endeavor but also in social amelioration. To all of this we cannot but subscribe whole-heartedly and enthusiastically. But from such a declaration of policy, there is still a far cry to that extreme condition which is demanded by the radical thinker who would identify medical practice with many of its subsidiary and ancillary sciences and would sacrifice the necessarily dominant character of the physician to the more clamorous demands of the welfare director.

Let us introduce courses on management and organization and welfare into our medical curriculum, if time permits, but let us not sacrifice to such courses the instruction in the more immediately necessary disciplines which are the physician's own special field of influence. Let us preach the spirit of cooperation with social agencies; not as substitutes for medical ideals, but as a procedure which will more effectively safeguard the nation's welfare through more adequate medical and health care. And in the practicing physician's life a place must be found for the sociological



influence on his practice but not through a curtailment of the medical influence on his sociological environment.

It seems to me that the minority report has more completely grasped the soundness of the principle which I have here discussed. If much of this seems trite and platitudinous, I can only defend my repetition of it by calling the attention of the interested student to many of the demands made by the majority report.

## VII.

The countless illustrations of the contrasts between the majority and the minority reports on the three fundamental issues which I have attempted to review are eloquent evidence of what I regard as a fact, namely, the division within the medical group itself. Surely, if this is the case, no one could be foolhardy enough to claim the sum total of wisdom in settling the problems which confront us as medical educators. On the other hand, it is only by stressing these contrasts, as I have here tried to stress them, that clarity in our thinking may be promoted. Let me hope that all of us, mindful of the seriousness of our obligation as medical educators to the present as well as to future generations, shall have the prudence and courage to hazard a solution each in his own school so that out of this experimentation on a national scale there may emerge those convictions which will safeguard medicine as one of the chief factors in human welfare.

## Medical Care of the American People; Income and Distribution of Physicians from the Standpoint of the Hospitals\*

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In preparation for this paper, I felt that a survey of the opinions of the hospital field would be of much greater value than the thoughts of a single individual. With this in mind, fifty personal letters were written to superintendents of hospitals distributed throughout the United States and Canada, from the east to the west coast. Large and small hospitals were included. These hospitals were under public, church, community and proprietary control. This paper is a compilation of quotations from the replies received and represents the thought of the group.

"The medical care of the American people has become definitely a hospital matter, rather than a matter for the physician in the private home. I think no one can answer at present the question which naturally follows, that is; what type of hospital will be the one best fitted to look after community needs? Probably the eventual situation will be very much what we have now, teaching institutions, public institutions run by the government and private institutions supported by the private individuals who pay their way and by special endowment. It seems to me that all these types of hospitals have a definite place in our community and serve definite needs.

There is a great deal of conflict in some quarters relative to the private practice of medicine by state hospitals and state institutions, connected with medical schools. This, I take it, will not be a serious matter eventually and will probably work itself out and finally be adjusted to the best interests of the community.

We have noticed here that medicine is becoming more and more a group matter, connected with the various hospitals. It was only a little while back that various leading practitioners drew their clientele by reference from all the hospitals and from all the physicians no matter what their hospital connection. It is becoming increasingly evident that the group forming around and in hospitals are crystallizing to an extent that practically all referred work is coming to the men in the special branches from their own group, from their own hospital connection and that the day seems to have passed when men can expect referred work from all parts of the city. This means, of course, that the relation between the medical

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staff and the hospital will become increasingly closer and that various executive arrangements will have to be worked out so that the proper balance of power will be delegated to both the administrative wing of hospital organization and to the medical or professional wing.

I am very anxious to see the personal relation of physicians to patients preserved. I deplore group practice to the extent that it makes a patient every man's problem without giving any one person the personal interest and responsibility for looking after the case as his very own.

I think whatever plan is eventually successful will include this principle because I regard it as even more important than the professional qualification of the medical man himself."

"Drawing my conclusions in accordance with a syllogism of the first order, I must say that the hospital will sooner or later be involved in a community scheme for the care of the sick. Thus—any plan which is best for the patient is the right plan. The plan which rules out every commercial consideration and stresses only humanitarian values is best for the patient. Therefore, it is the best plan. It is my opinion that when the time comes hospitals will have to take the lead since they employ, albeit on a voluntary basis, the largest single group among the medical profession. The medical care of the American people can hardly be separated out as a subject apart from the medical care of mankind generally. The income of physicians will not be subject to the wide variations that we see today, which variations are not altogether dependent on scientific or humanitarian variations as you know. The distribution of physicians would be more in accordance with the needs of the populations, since otherwise their presence in certain localities would be wasteful of public or private funds.

If I were addressing the Association of American Medical Colleges on this subject, I would remind them of the ideals which they try so hard to inculcate in their students—ideals which do not last long when the student becomes the physician in private practice. On this ground at least the medical colleges should join hands with the hospitals in a struggle for the survival of the principles that both seem to be teaching in an environment which is hostile because it is so strongly commercialized."

"1. Medical care of the American people must be made available for all classes. The medical profession should take the initiative, otherwise the lay public will eventually take a hand and work out a program to their own liking. Whether we call it state medicine or what, the state must assume the major responsibility for the care of the indigent sick. Private

hospitals and health agencies cannot be depended upon to assume their former share in the care of the indigent, at least during times of depression. A breakdown in private charity in the public health field has become quite evident in the present depression."

"There is no question but what there are ample facilities to take care of the need for hospital service in the populated centers, in fact there seems to be an over-supply at this time. I presume that there are sections of the country where added facilities are needed but certainly not in the large cities. At the same time that there seems to be an oversupply of hospital beds, most of the public institutions have been running near capacity. This is due to the fact that such a large proportion of our people have been out of work for long periods of time and have suffered severe losses, making it necessary for them to seek free medical and hospital care. No doubt, this condition will change as times improve because most people will want to choose their own physician and will go to the hospital with which the doctor is connected provided they have funds with which to pay."

Dr. B. F. Beasley, of Atlanta, Ga., in a recent and very thoughtful paper on the "Economic Status of the Medical Profession" (J.A.M.A. Oct. 15, 1932) reports that "conservatively estimated, at least 50 per cent of the sick of Atlanta are charity patients, thus leaving each doctor in that city an average of only 259 people who are able to pay."

"There are two kinds of hospitals. In one the institution pretty much controls the profession. In the other, the profession controls the institution. The latter are the hospitals in competitive communities which depend for most of their support on the patronage of pay patients brought to them by the profession. These hospitals, I think you will admit, are in the great majority, and cannot help but be very much interested in the economic changes which will probably take place in medical organization during the next decade. Like Will Rogers, I might say that 'all I know is what I read in the papers,' but even I would venture to predict that the system of medical service in the next few years will undergo changes which will give the institution better control and the public better service at a lower cost. The medical profession has been very apathetic and very reactionary probably because of their horror of State Medicine. It is obvious, however, that some form of State Medicine is inevitable and it is up to the profession to make it as palatable as possible for themselves."

"A relatively small proportion of the illnesses and diseases from which the individual suffers require hospitalization but when it is needed it is expensive and the average person finds it an exceedingly heavy burden."

Therefore, in the future if economic conditions do not improve greatly it may become necessary for the government to subsidize private hospitals in order to make the cost to the individual patient in keeping with his means or lack thereof. Even those hospitals having endowment funds have found the income shrinking and additional endowment gifts dwindling and, therefore, even those fortunately situated institutions will have to either curtail their program or seek assistance from governmental agencies. This procedure will, of course, mean a form of state medicine and certainly from the point of view of the medical profession this is not desirable. Personally, I feel that the best and greatest development of the practice of medicine will continue to come through the individual and collective efforts of the profession. However, unless the doctors are willing and able to devise some form of insurance or partial payment plan, it is almost inevitable that we will have State Medicine. If the government should subsidize hospitals it will also have something to say about their management and the doctors who practice therein. There would then be, except in the university hospitals, a tendency to throw them wide open to all doctors and political pull would become a predominating factor. This I think would be detrimental to the best interest of the patient as well as the profession.

As I see it, the sphere of the hospital consists first of all in rendering adequate care to the patient which means the providing of suitable personnel, buildings and furnishings, including the necessary therapeutic and diagnostic equipment; to assist in the education and development of the intern; to further the knowledge of the graduates in medicine by means of staff meetings and clinics; to train and educate nurses and technicians; to exercise proper care in the selection of doctors permitted to care for patients in the hospital, and more particularly, to see that the so-called specialists are duly qualified in their particular spheres."

"I have contact with a great many of the general practitioner type; there is a tendency on their part in these times to envy the pro-rata share of money expended by the public for hospitalization regardless of the fact that the hospital constitutes the physician's workshop and that it is necessary for almost every institution to expend from 80 to 85 per cent of its income within thirty days for actual operating expenses. The tendency is to curtail the use of hospital facilities, to a minimum which does not always serve the best interests of patients. Of course, we all know this is done to conserve the patient's resources with a view of making possible payment to the physician. This, however, is just a human tendency and there can be no criticism of the profession on this account, but neverthe-

less it constitutes a definite factor reacting against the best interests of our hospitals.

In this connection, we must of course, admit that the structure of service in American hospitals has become top heavy. Sixty per cent of this came about through pressure and stimulation from the profession itself in its zeal to carry out modern technique. The other forty per cent resulted from the public itself in demanding the luxury and service parallel to that afforded by the rank and file of hotels and to which "most every person in every walk of life has access on some occasion."

"Group hospital insurance would without doubt increase the physicians' collections, since the patients would have only the physicians to pay instead of both the hospitals and physicians. Under ordinary circumstances, when there are both doctors' and hospital bills, the physicians are the last to be paid, therefore, I think it is short-sighted on the part of the physicians to oppose group insurance, which would make their own collection easier.

Of course, the charges made to patients by physicians, hospitals, and nurses, in the end affect not only the patients but also reflect each upon the other, because if any one of them is out of proportion it naturally does an injustice to the other."

"3. There is a question whether the output of medical schools should be curtailed any more than the production of lawyers, engineers, architects, teachers, and other professions. We should not become intellectually idle during the depression. Higher standards in medical education might be available, under which no artificial methods might be necessary to curtail enrollments in medical schools."

"It has frequently been said that we have too many physicians. I do not agree with this. Let me put it another way. We have not enough physicians properly trained to cope with the existing circumstances. Forty million people in the United States are deprived of proper medical care largely because physicians have not been trained economically to cope with this problem.

Physicians are trained to diagnose and treat disease, largely overlooking the fact that there are many non-pathological, psychic and functional disorders which need proper supervision. Are not our medical colleges largely to blame for some of the existing circumstances because they fail to impress the students with the necessity of coping with these semi-medical problems? Professionalism has attained the reputation of sponsoring egotism. Egotism is conducive to selfishness.



Selfishness creates a smoke screen blinding the individual to the necessity for practical solutions of the many problems. Modern science has decreed that a full measure of service to the patient can only be rendered by a combination of several treatment service agencies. The physician apparently has not been impressed with this fact. None are so blind as those who will not see, is just as true today as when these words of wisdom were first written. That circumstances relating to medical and hospital service have changed cannot be denied.

When present medical ethics were originally written hospitals were practically unknown factors in the service world. At that time the family physicians were not only doctors, but many times had to render nursing service. In the beginning hospitals were largely operated as a means of fulfilling religious vows. The practicability of these early institutions was rapidly recognized and their growth was phenomenal. In a short time hospitals were recognized as a place in which to seek health instead of largely institutions in which to die. Public confidence demanded greater development until today, hospitals stand hand in hand on an equal basis with the physician as an agency of service for the sick and injured.

The time has now come when the physician must share his laurels with those responsible for good hospital service."

"I opened the local telephone directory and counted the names of the doctors listed; I found that the list totaled 205 names. With a population of 65,000 this gives us a doctor to every 317 people. While it is true that the list contains the names of several who do not maintain a local office, their practice is in no sense limited to the nearby city.

In addition to the above I found that we can boast of four naprapaths, five chiropractors, nineteen osteopaths, and twenty-four christian science practitioners, which reduces our 317 possible patients to 253.

And now for the first time I understand why our standards at the hospital are considered outrageously high, for if they were lower and our doors opened wider each one of the 257 practicing the art of healing would have all of the patients he desired, in spite of the handicap of an insufficient population.

This community has far too many doctors, and I say that, recognizing that many men with national reputations practice here, and who consequently attract many patients from out of the city and state.

The result of this local overcrowding, as far as the hospital is concerned, is that the hospital is accused of practicing medicine because of the out-patient department it maintains, and the pittance that a few pay for that service is exaggerated and misinterpreted."

"The steady depopulation of the rural districts and the crowding of practitioners to the cities and in growing industrial centers is an old problem that has confronted the people of this and other countries for the last fifteen years.

This awkward situation has been well recognized and serious efforts have been made to relieve it and there is good reason to believe that the problem of securing satisfactory medical service for most rural districts is gradually being solved.

Apart from the constantly improving facilities for communication and transportation which have enormously expanded the radius of the physician's area of service, the rapid rise and development of hospitals and infirmaries in the smaller communities throughout the State is by far the most important single factor in correcting the uneven distribution of physicians in the rural parishes.

It must be recognized, however, that some remote communities cannot support medical service on a basis of private practice. The solution in such districts appears to be the employment of a physician on a salary with reasonable provision for an adequate diagnostic and therapeutic equipment.

In the matter of distribution of physicians, a few years ago very few of the physicians in the smaller communities attempted to do any surgery, and surgical cases were sent to large centers of population where specialists and well-equipped hospitals are to be found. The physicians in the rural communities are, however, more and more preparing to do their own surgery, and as a result the smaller hospitals are having to improve their x-ray, laboratory, operating room, and other services. If the physicians continue to distribute themselves away from the centers of population, fewer patients will be sent to feed the large medical centers."

"The old country doctor of a few years ago is fast fading from the picture, and the new generation of medical men requires hospital and laboratory facilities in order to give their patients the kind of care commensurate with the doctor's ability. For each doctor to equip himself with laboratories and apparatus of sufficient amount and quality only serves to increase his expenses with the resultant increase in the cost of medical care to the patient. Therefore, it is my feeling that small municipal hospitals and county hospitals well organized, equipped, and administered should be and will be established throughout the country, and the physicians practicing within a reasonable radius of these hospitals will use their facilities for the more elaborate and difficult procedures. These rural hospitals might be considered a branch of some large medical center or have a working arrangement with some medical school whereby their most difficult patients could be referred to the larger institution for more detailed study."

"I am frank to say that I do not think that the average competent doctor is over-paid for the services which he renders his patients because his overhead in the way of cost of education, purchase of medical literature and periodicals, membership fees in the various medical organizations, and a more than average standard of living which is necessary if he is to maintain his position of leadership and to build up confidence in his professional ability. It is well to remember that all doctors give generously of their service at reduced rates depending upon the patients' ability to pay and also that much is entirely free.

Nevertheless, at the present time there are many patients who need to know in advance of operation what the surgeon's fee will be. I am inclined to think that it would be well if schedules of fees could be worked out on a more definite basis for the various strata of society. A fee of \$100.00 to \$200.00 or more for an operation is often so prohibitive that the prospective patient turns to the free clinic or forgets to pay his doctor after he is discharged. There must be many instances of patients seeking entirely free service, who if they knew in advance that they would be charged a nominal fee of \$25.00 to \$50.00 would pay in full and also pay a modest sum for hospital care. I feel this would increase the income of the physician as well as the hospital. In other words, if the medical profession and the hospital field could cooperate more closely along these lines, it would be possible to give competent care at a price which could be met.

It also occurs to me that specialists' fees are often times out of proportion to that of the general practitioner and the internist. It is true that the psychology of the public favors the surgeon, his work is more spectacular and I must admit that the surgeons work under a greater strain. The patient is also under a strain and usually feels most grateful to the surgeon and, is willing to pay a larger amount for his services. It is reasonable, however, to think that where more than one doctor is needed to arrive at a diagnosis and effect a cure, there should be a fairer distribution of fees received by each doctor. It would seem that the surgeon could afford to reduce his fee when other specialists are assisting in the handling of the patient. Of course this is a point to be worked out by the doctors themselves."

"2. Income of physicians will perhaps experience an equalization and adjustment, just as the incomes of all professions and classes of workers during the recovery period. Perhaps some central agency will eventually develop for the purpose of working out a distribution of physicians, to prevent the waste of medical talent, and bring about a greater equalization in the income of physicians."

"The cost of medical care of the American people is 50 per cent more than it should be; the advancement in facilities in the hospital world progressed too rapidly in the past ten years that we must catch up with existing facilities, and use of such facilities. I believe that the hospital and medical world are not discharging their duty to our sick, neither in the cities nor especially in thinly populated states. That our solution is not necessarily any system of pro-rated costs, but rather to make the cost of sickness in hospitals and of doctors' fees within the reach of all the sick, plus an educational program to bring the two together, with the individual payment by the sick for the services rendered them, as stated above, on definite schedule within their ability to pay.

I know this is radical and, as stated at first, it is only my humble opinion. This institution succeeded in reducing the average charge per patient from \$128.00 in 1929 to \$42.00 in 1932, and we had more patients in 1932. Our collections of the \$128.00 was 49 plus per cent, and in 1932 of the \$42.00 average accounts was 92 plus per cent. The hospital was in better financial condition following the 1932 year than after our 1929 experience.

Our medical staff have not accepted any schedule of fees but in a few instances of individual doctors who have tried reduction of fees, to say, \$50.00 for an appendectomy, they stated that they were collecting more money than previously.

In our state the men graduating from our own University Department of Medicine greatly prefer staying in the city. Recently, it is a problem to get young doctors to relocate in nearby towns that needed a doctor and which I considered, offered a good opening.

A check of our staff some time ago gave us the startling figure that the average collection of doctors' fees from hospital patients while in hospital was less than \$10.00 per patient. I haven't any idea of the rural income except from contacts with doctors that bring patients to us. For the last three years they have lived greatly from barter and very little money."

"In presenting a few observations on the problem of 'Medical Care of the American People' it occurred to me that the question might be reviewed from two angles: First, to what extent is the medical care needed? Second, is there any practical method or plan to supply all the people's needs with good medical service?

Now, in dealing with the first aspect of this matter, I presume the result of the investigations of the Committee on the Cost of Medical Care might be accepted as our guide and in perusing their report we are informed, the amount of care which people need is far greater than that which they are aware of needing, and greater than that for which they

are able to pay under present conditions. That in spite of the large volume of free work done by the hospitals, health departments and individuals, that each year nearly one-half of the individuals in the lower income group receive no professional medical attention of any kind—curative or preventative. That our present system on the one hand lays an unjustifiable burden of unpaid service upon the physician and the hospital and, on the other hand frequently gives the individual of the middle economic level only a choice between becoming a recipient of charity or foregoing needed medical care."

This, in a nutshell, seems to crystallize the need, and is the challenge than confronts the hospital field in America today, and requires a solution because our hospitals are groaning under the burden of their debts and yearly make sorry appeals for larger allowances before perplexed county, municipal and state authorities, while a large number of the medical fraternity are hard pressed to make both ends meet.

In more recent times, hospital administrators have followed with interest the inauguration of such schemes as (1) Group Insurance; (2) Periodic Payment Plans; (3) Flat Rates; (4) Pavilions for Patients of Moderate Means; (5) Finance Corporations for Financing Medical Care, all, in my opinion, palliative measures at the best, but not all embracing, and do not strike at the root of our troubles.

In some sections of the country there are those who advocate state medicine as a solution of our difficulties, and in considering such a proposal one may rightly ask to what extent or in how large a measure shall the state enter into and control human living? In how far is the standardized and state controlled condition of affairs best for the people in matters relating to hygienic conditions and the whole embracing problem of health. The popular phrase of today is, "It is up to the Government," but we all know that where the state steps in voluntary action and individual effort steps out—a reaction which must be viewed with concern, for we have only to glance over the past records of our institutions to realize that their pages furnish an illustrious tribute to those who by voluntary effort, self-sacrifice and generous financial support have succeeded in placing our privately owned institutions in the eminent place they occupy in the medical world today.

It may be true that in certain phases of human living state control is admissible; for example, sanitariums, mental institutions, homes for incurables, etc., but in the field of preventive and curative medicine I contend this is a responsibility that vitally concerns every citizen in terms of money and personal interest.

It is important to note that in dealing with the incomes of families in

the United States, the Committee on Medical Care present the following findings:

In the first place, incomes in the United States are so distributed that relatively few families have an income as large as the arithmetic average.

That approximately 50 per cent of all families of two or more persons had, during 1928, total annual incomes of less than \$2,000 and 40 per cent more had incomes of from \$2,000 to \$5,000.

That our estimate of the distribution of individual income recipients in 1928 indicates that 80 per cent of them had incomes of less than \$2,000, and 95 per cent less than \$3,000.

A striking analysis, and it is these people who demand our attention today.

Therefore, from the standpoint of the institutions engaged in the treatment of the sick the question we must ask ourselves is, can we reduce the expense of medical care to such a minimum that it will bring our costs within the financial reach of these people, and at the same time allow them to pay a reasonable fee to the practitioner who today receives little or nothing for the service he renders to these patients?

As an hospital administrator my answer is in the light of prevailing conditions and the standard of efficient service that must be maintained to produce the best results I cannot conceive for the future any radical downward trend from present day costs of medical care, and so we must look for and devise other means of solving our problem.

Now, whether we like it or not, we cannot get away from the fact that we are our brother's keeper. The health of any particular community can no longer be treated as an isolated matter. It concerns the people individually and collectively. It is national in its import, which leads me to conclude that the only way in which this problem can ultimately be met is by the inauguration of a compulsory national health insurance scheme under a plan in which no profit would be made by any outside organization, but would be conducted by the government for the people and supported by the people.

This scheme would impose a compulsory tax on every employed wage earner in receipt of a salary or wage up to an amount to be determined. The plan should make it possible for a large portion of the population to pay in full whatever may be charged for needed medical service on terms which must be reasonable. It would relieve the strain on the ill, the medical profession, and the hospitals, and distribute costs in a manner that would be equitable and cause the least inconvenience to the largest number. The cost of medical care for those who cannot pay shall be distributed according to ability to pay over the rest of the communities.



I am of the opinion that with some such plan in force the adverse conditions under which the medical services and the people now suffer would be alleviated. The heavy drain on our institutions today is the care of the indigent, and those who can only pay in part the cost of treatment. But with the easement of this financial burden I submit our institutions would then be in a position to afford the patient of moderate means medical care at far more reasonable rates than those in force today.

It is interesting to learn that according to the report of 1932, the King Edward Hospital Fund in London, despite adverse conditions, collected by voluntary subscriptions and donations approximately \$10,000,000. Generally speaking, our practice is to rely on the beneficence of a few wealthy and influential philanthropists to help us out in the hour of need.

I am satisfied that in the large centers, particularly, our outdoor departments are today being exploited by those who are able to pay the hospital and the doctor, and it would, therefore, seem timely that our people should be asked to contribute through the medium of a nominal levy toward the creation of an adequate and accessible public health service. In advancing this idea, however, we must be careful in the future to avoid criticism that has been leveled, and justly so, at the waste and planlessness of effort in affording medical care. The confidence and support of the public can only be acquired by cooperation between those who furnish services and those who pay if we are to obtain the benefits that are desired."

#### SUMMARY

1. There is a definite recognition of the unrest against the economic methods employed in medical care.

2. It is agreed:

(a) That every one is entitled to the best care medical science can offer.

(b) That that which is best for the patient is also best for the profession and for the hospitals.

(c) That under the present system neither the profession as a whole, nor the hospitals are adequately compensated.

(d) That even under normal circumstances the burden of medical care for a major illness is beyond the means of the average individual.

(e) That physicians and hospitals should be compensated for charity work.

(f) That some method for a more equal distribution of the cost of medical care must be developed.

In closing, I wish to repeat the statement I made at the beginning; namely, that in my effort to bring you the ideas of others this paper is in its entirety a compilation of quotations.

## Administration of Internships\*

JENNINGS C. LITZENBERG

Professor of Obstetrics and Gynecology, University of Minnesota  
Medical School, Minneapolis, Minnesota

In 1911, the Board of Regents published in the catalog that any student entering the medical school in September of that year must take an approved internship for the M.D. degree. The course leading to this degree is a combined course in the arts and medicine or science and medicine, thus requiring either six or seven years of study. Therefore, in 1917 and 1918 all students would be required to take an internship for the M.D. degree. Through various circumstances, especially the war, it was not until the school year 1919 and 1920 that we were able to establish the internship as a requirement for the M.D. degree.

Our faculty took the attitude that to require a student to take an internship without any supervision of that internship on the part of the medical school would be fruitless. Therefore, a committee was appointed for the purpose, classifying the hospitals and selecting those in which we would permit our students to take an internship.

The students took the attitude that if we were to require an internship we should furnish it. I was arguing with them one day at the end of a lecture about it, and in a fit of impatience I said, "I will get you the internships." I had no more than said it, than I wished I had not, and for thirteen or fourteen years I have been regretting it.

I sent out letters to the well known hospitals of the country, and within three weeks we had internships for three times as many students as we were to graduate. This has continued up until the present time. We have never had any difficulty getting good internships for our students until the present time. We are having some difficulty this year but we have always secured internships for the students.

We thought that just to require a student to take an internship and then go out and get it himself would not improve conditions. Our sole idea in the required internships was to improve medical education, and if we could not do it in that way it would not be worth while.

We require that a hospital be standardized by the American College of Surgeons, that it be on the approved list of the American Medical Association as a hospital fit for interns, and we also require investigation by our Internship Committee. That is done by personal knowledge and investigation of the hospitals in this state. In hospitals in other states, it is done through confidential information received from physicians in those localities.

\*Presented at the Forty-fourth Annual Meeting of the Association of American Medical Colleges held in Rochester and Minneapolis, October 30, 31 and November 1, 1933.

Our experience has been that because a hospital is famous is not an indication that it is a good place for an intern. Some of the best hospitals in the country, including university hospitals, have been taken off our list because they have not furthered medical education, and that is our sole object. In other words, if in these hospitals the young men are not given better clinical instruction than they are given in the ordinary internship, then that hospital is not suitable for an intern.

In the first place, we send out our rules, which, briefly, require these qualifications. We have the additional qualification that they must have a laboratory that is in charge of a trained laboratory physician, not a technician; that the x-ray laboratory must be in charge of a trained roentgenologist, not a technician, who in every case is giving his full time to this work.

We keep track of the clinical teaching in the hospitals through a supervisor of interns. In the Twin Cities, of course, members of our own faculty are supervisors of the internships. The supervisor of internships has two chief duties: first, that the intern be compelled to do his work properly; to do all the things required of him by the administration and the staff in the best possible manner. Second, that the staff teaches the intern. Hospitals desiring to be placed on our approved list are asked to answer the following questionnaire:

1. Is ..... hospital standardized in accordance with the requirements of the American College of Surgeons and the American Medical Association? .....
2. Is the hospital approved by the Council on Medical Education of the American Medical Association as a suitable place for interns? .....
3. Is your hospital a Charity hospital ..... or a Mixed hospital ..... or a Private hospital.....?  
No. of charity beds ..... No. of private beds .....
4. Does your staff hold regular scientific meetings? .....
5. Do the interns participate in these meetings? .....
6. Number of beds in the hospital. ....
7. Number of beds devoted to medicine. ....
8. Number of beds devoted to surgery. ....
9. Number of beds devoted to obstetrics. ....
10. Number of beds devoted to gynecology. ....
11. Number of beds devoted to pediatrics. ....
12. Number of beds devoted to various specialties. ....
13. Is the service rotating in all departments, or is it a straight service in one department? .....
14. Is there a pathological laboratory conducted by a physician, who is a trained pathologist? .....
15. Is there an X-ray Department conducted by a physician who is a trained roentgenologist? .....
16. Is it a teaching hospital? .....
- 16a. Is the staff composed of teachers in a medical school, and if not, will the members of the staff be willing to comply with the rules enclosed herewith in regard to clinical teaching? .....
18. If your hospital pays a salary, what is the amount? .....

19. Will the hospital, including the officers, board and staff, agree to comply with the rules herewith enclosed? .....
  20. Do you desire to have us assign interns to your hospital? .....  
When? .....
  21. What would be their period of service? .....
- The Medical School of the University of Minnesota graduates a class with the Degree of Bachelor of Medicine in March and June of each year. The intern year is required for the Degree of Doctor of Medicine. Address: Dr. J. C. Litzenberg, Chairman, Seventh Year Committee, The Medical School, University of Minnesota, Minneapolis.

When John Smith applies for his internship, he makes three choices, on the following blank:

TO THE SEVENTH (INTERNSHIP) YEAR COMMITTEE

I desire an appointment as intern in one of the following hospitals, beginning ..... 19.....

First Choice .....

Second Choice .....

Third Choice .....

I hereby agree to accept an appointment in any one of the above hospitals and to serve the full term, for which I am appointed.

Class of 19..... and 19..... Signed.....

Division ..... Date.....

Graduating in March, June, 19.....

Then the student is assigned to the hospital in the order of his class standing, which is figured by the registrar of the University at the end of the junior medical year. For instance, James Hartwell, expecting to receive the bachelor of medicine degree, selects the Minneapolis General Hospital in Minneapolis for his internship from July 1 to June 30. The superintendent of the hospital is Dr. Remy, and the supervisor of interns is Dr. John Urner, a member of our faculty. The applicant signs the following blank, which is his registration. It is also signed by the chairman of the Internship Committee and by the dean of the medical school.

UNIVERSITY OF MINNESOTA  
MEDICAL SCHOOL REGISTRATION FOR INTERNSHIP

Note: To be filled out in duplicate.

Name ..... expecting to complete the sixth year of the Medical Course..... 19..... hereby registers

for a ROTATING - SPECIAL—INTERNSHIP - ASSISTANTSHIP in the HOSPITAL - LABORATORY located at .....

for the period from ..... 19..... to ..... 19.....

Name of Superintendent of Hospital or Director of Laboratory .....

Name of Supervisor of Internship (*not to be filled in by applicant*).  
(*to be appointed by Internship Committee*). .....

Address of Supervisor of Internship .....

Signature of applicant .....

Date ..... 19.....

Registration approved .....

Internship Committee.

Dean.

At this point I want to emphasize that these students are registered as university students, and by action of the Board of Regents are officially declared to be in residence wherever they may be serving their internship. Then, we ask for a rating of the intern by the superintendent of the hospital based on observance of rules, conscientiousness, faithfulness, attitude toward patients and superintendent, promptness, history taking, keeping records, cooperation and clinical work, by departments. These grades by departments give an example of the work the intern is doing. In the Minneapolis General Hospital, some one of the teachers in each department grades every one of those men and sends me the numerical grade on his work. They take into consideration some other things, and then I give them their grades on their internship from those markings. So these are not hit-and-miss grades.

I am writing to ask if the work of Dr. .... is satisfactory as an intern. We are anxious that our students get the maximum of clinical experience and we realize that in order to do this they must give their best efforts in service to the hospital and staff. If his work is unsatisfactory in any way we want to know about it.

May I take the liberty of asking you to grade him A, B, C, D, E or F, according to the following plan: A—Excellent; B—Good; C—Fair (Average); D—Passing; E—Poor (Condition); F—Not Satisfactory (Failure).

Thanking you for your reply, I am,  
Very sincerely yours,

Jennings C. Litzberg, Chairman, Intern Committee.

#### RATING OF INTERN

1. Observance of rules of hospital. 2. Conscientiousness. 3. Faithfulness. 4. Attitude toward patients. 5. Attitude toward staff and superintendent. 6. Promptness. 7. History taking and keeping records. 8. Co-operation. 9. Clinical work: Medicine.....Surgery  
..... Obstetrics and Gynecology..... Pediatrics.....  
Laboratory (including x-ray)..... Specialties.....
10. General rating .....  
(Signed) .....Superintendent.

Rating the intern is done twice a year. In the middle of the year, the hospital gives its rating of the man, and finally at the end of the year he is given a rating for the whole year and the superintendent answers the question, "Do you recommend him for the degree of doctor of medicine?" Sometimes, he does not recommend this. Sometimes, in the middle of the year, he will report that the intern's work is unsatisfactory. In that case, the young man gets a very fatherly letter from the chairman of the Internship Committee and, furthermore, if there are any disciplinary measures necessary, they are exercised by the superintendent with the cooperation of the university.

If the superintendent is not a physician the chief of staff is asked to give the ratings after consultation with his staff.

Sometimes, disciplinary measures are necessary. Occasionally an intern

is not satisfied with the service. He thinks he has not had enough tonsillectomies and, therefore, the internship is not a good one; or he did not get the first assistantship in the operation for brain tumor and, therefore, he is not getting any experience in surgery; or the chief surgeon had the temerity to take out an appendix himself.

We do not have any of those troubles any more. Formerly, when an intern was dissatisfied, he could leave the hospital. He cannot leave the hospital now. He is a student registered in the university. If disciplinary measures are necessary, the young man is reminded that he is a student in the university, registered for his seventh year in his combined medical course, and that he must do his work in a manner satisfactory to the staff and superintendent of that hospital, the same as if he were doing it for his professors in the departments at the university. That usually has the desired effect.

Sometimes, students have been penalized by making them take additional time in their internship either because they had not received sufficient experience or because they had not done their duty in the internship.

The superintendent of a hospital in Ohio wrote to me that our two men who were in that hospital were very unsatisfactory; that they had assumed an attitude which was very critical of the staff and were not attending to their duties in many other ways. Those young men received a letter from the chairman of the Internship Committee and were reminded of the things I have just told you. In six weeks I got a letter from the superintendent, stating "You would not know these men now. They are the best interns we have, and the one who was the worst has been appointed a resident for next year in medicine."

The discipline was applied through the university. They were students in the university, and knew that if they hoped to get the M.D. degree they would have to come up to the mark.

In the administration of these internships for a period of nearly fifteen years, I find very few students who want any pay except clinical experience, and they have largely gotten away from the idea that they must do the major operations. Such an attitude can only be brought about by the men on the staff teaching the intern and giving him every possible opportunity for practical experience.

Some hospitals have written to me and said, "Can you send us more interns? We like the men we had last year. Can we have some more this year?"

In some cases I reply, "I am sorry to say our men report that the clinical teaching in your hospital is all right, but they get little experience." Such hospitals are taken off the approved list.



Our interns have served in 122 hospitals, ratings of which are in our files. We have information on 97 other hospitals but no direct knowledge. When a man wants to select his hospital for internship, he has access to these files. If they want to go to such-and-such a hospital, and they want to find out about it, they go to those files and under the city of Washington, Philadelphia, San Francisco or any other city they find the hospital listed. They take that file out and read it.

In the first place, they find the rating we have given. We rate the hospitals A, B and C: A, charity; B, charity and private; C, private. Some private hospitals give very good clinical teaching. Some public hospitals do not, but, as a rule, the public hospital gives the best clinical teaching.

The prospective intern takes out the file and he can read all that data. For instance, under a certain hospital in Philadelphia he can read where one man said last year the place was not good. Then he reads other letters in which other interns who have been there say it is a fine hospital, with good clinical teaching, and so forth. Then he comes to me and says, "What about this? Here is one intern who says this place is not good." In that particular instance I may know that the disgruntled intern did not observe the rules of the United States Prohibition Law (very rare, of course), drank too much and got into trouble, and, therefore, he had to be disciplined, and it took that man a year and a half or two years to finish his one year of internship because of his recalcitrant attitude.

When the intern has about completed his internship the following questionnaire is sent to the superintendent:

I am writing to ask if the work of .....  
has been satisfactory during the entire year of his internship. If his work has been of merit, do you recommend him for the M.D. degree?

May I take the liberty of asking you to grade him A, B, C, D, E or F, according to the following plan: A—Excellent. B—Good. C—Fair (Average). D—Passing. E—Poor (Condition). F—Not Satisfactory (Failure).

Thanking you for your reply, I am,

Very sincerely yours,

Jennings C. Litzenberg, Chairman, Intern Committee.

#### RATING OF INTERN

1. Observance of rules of hospital. 2. Conscientiousness. 3. Faithfulness. 4. Attitude toward patients. 5. Attitude toward staff and superintendent. 6. Promptness. 7. History taking and keeping records. 8. Co-operation. 9. Clinical work: Medicine..... Surgery.....
- Obstetrics and Gynecology..... Pediatrics..... Laboratory (including X-ray)..... Specialties.....

General rating .....  
Do you recommend him for the Doctor of Medicine degree?

(Signed) .....

Superintendent.

Hospital.

When we receive the letter from the superintendent, we send the student the following certificate, which is to be filled out by the superintendent, stating that he has fulfilled all his obligations to the hospital in a satisfactory manner. At the bottom the young man writes the address where he would like to have his diploma sent.

UNIVERSITY OF MINNESOTA MEDICAL SCHOOL  
CERTIFICATION OF INTERNSHIP FOR M.D. DEGREE

This certification of the completion of an internship (or laboratory assistantship) must be filled out on the day (NOT BEFORE) of completion of service and mailed to Dr. J. C. Litzenberg, Chairman, Seventh Year Committee, Medical School, University of Minnesota, Minneapolis, Minn.

Date.....19.....

This is to certify that .....  
has this day completed an internship (laboratory assistantship) in the .....Hospital (Laboratory)  
and has satisfactorily fulfilled all obligations pertaining thereto.

Signed .....Superintendent, (Director)  
of .....Hospital (Laboratory)

Approved. Date ..... By.....  
Chairman, Seventh Year Committee

REGISTRAR: Please mail my diploma to the following address:

Signed .....  
Address .....

The seventh year may also be served in a laboratory. If a man wishes to go in to laboratory work, or if he wishes to take a year of laboratory work before he gets an internship, he can get his M.D. degree by serving one year in the laboratory.

When all of the internship requirements have been fulfilled the following certificate is sent to the president of the university:

MEDICAL SCHOOL.....193.....  
TO THE PRESIDENT:

.....having received the  
Bachelor of Medicine degree, will complete the requirements for the  
Doctor of Medicine degree .....19.....  
one year of graduate internship — one year of laboratory work.  
in the .....hospital — laboratory.  
located at .....  
is hereby recommended for the Doctor of Medicine degree, diploma  
to be dated .....19..... and conferred  
upon satisfactory completion of the internship — laboratory work.

Chairman Seventh (Intern) Year Committee

Dean of the Medical School

To aid us in classifying and rating the hospitals the following questionnaire is sent to each intern:

Dear Doctor:

It is the custom of the Seventh Year Committee to ask all interns twice a year to give their frank opinion of the hospital in which they are serving as a place for an internship. Will you please answer the

following questionnaire? All information will be treated confidentially.  
Fraternally yours,

Jennings C. Litzenberg, Chairman, Intern Committee.

Report of ..... Intern at

1. Are you well housed and well fed?
2. Are you getting good clinical services? (Please report by departments).
3. Is the staff high grade? (By departments)
4. Does the staff take time to teach you?
5. Do you attend staff clinical meetings?
6. Is there a clinical-pathological conference?
7. Do you attend?
8. Are there special clinics, clinical meetings or clinical lectures for interns?
9. Are you given time, encouragement and opportunity for reading in connection with your cases?
10. Are you required to work up your cases thoroughly?
11. Do you have a laboratory service?
12. Or are you required to do the laboratory work on your own cases?
13. Remarks (Under this heading the Committee would like your general opinion of the hospital and also any confidential information you may wish to give. Please use reverse side of this sheet).

There is also a final file card on which is recorded where he served, and that he had a certain standing in his class. On the reverse side of this card is space for future data on this young man, where we can say he has now become a dean, the acme of success in medicine.

Name .....  
Class rank ..... in ..... MB. Degree ..... 19.....  
Internship in ..... hospital  
located in .....  
from ..... 19..... to ..... 19.....  
Superintendent .....  
Adviser .....  
Recommended for M.D. by hospital ..... 19.....  
By Seventh Year Committee ..... 19.....  
M.D. degree to be dated ..... 19.....  
Remarks:

After we got the internship idea established, we found that our students did not object to the idea at all, but they did object to not getting any certificate or degree at the end of the college course. Therefore, it was decided that they would be given the M.B. degree at the end of the medical course, and the M.D. degree at the end of the internship.

May I say something about outside work interfering with medical school work. One man made an average of \$5,000 a year while going through medical school, and was at the head of his class. He was a super-salesman. The story is told that he went to the flying field one day. His particular line was knitted goods. He paid his fee for going up in the airplane, and by the time they had made their three-point landing he had sold the aviator a complete aviator's outfit.

Another young man worked as a chemist for one of the big milling companies. He supported himself, his mother, and paid his sister's expenses in the college of science, literature and arts, and was also first in his class. Outside work did not interfere with these two unusually intellectual young men.

Cards are in our permanent file of all graduates recording the scholastic standing, the internship record and subsequent data. I got this letter the other day: "Dr. So-and-so has applied for membership on our staff. He gives you as reference." I consulted the reference file, found the data on this man and sent them to the inquirer, which may help him to get an appointment on the staff.

In closing: Our sole idea in having the required internship is for the improvement of medical education. If it improves the clinical education of the students, then it is a good thing. We thoroughly believe it cannot do so unless it is supervised, and we are sure that we are able to get our students better internships because of this supervision.

When we adopted this rule, I think there were three per cent of our graduates who did not take internships, so we thought in adopting this rule it would not be a hardship. But they were taking internships in all kinds of hospitals.

We have another rule that helps get them into hospitals where money is not a consideration. No man is allowed to take an internship in any hospital where the pay is more than \$25 a month, unless it be in a distant city, in which case he is allowed to receive a bonus or compensation which will pay for the expense of traveling to and from the distant hospital. Inasmuch as we have at the present time interns in the best hospitals of San Francisco, San Diego, Seattle, New York, Philadelphia, New Orleans, Kansas City, Chicago, Washington and many other cities we believe we have extended the opportunities for medical education for our students over the whole country. It is better for the intern, because we get him a better hospital. He gets better clinical teaching, because we see that he does. If the hospital does not give this, it is taken off the list.

## A Suggested Revision of Medical Education

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In a previous discussion of the problems confronting the graduate in medicine today, I have given it as my personal conclusion, that the present and future trend of medicine is toward specialization, and that, in all but the smaller communities and rural districts, the medical graduate engaged in general practice will find it increasingly difficult to attain the professional recognition and financial success without which his ambitions would not be satisfied. I feel that this trend to specialization is the inevitable result of certain modern developments within and without the field of medicine; that it constitutes the major problem confronting the present graduate and undergraduate; and finally, that it is now so firmly established, that it deserves greater recognition by a revision of our present system of graduate and undergraduate medical education.

A revision of our present system of medical training which, I feel, would more nearly fit the needs of the times as I see them, would be based on a recognition of the following principles, namely; that the present range of medicine is too broad to permit the training of the undergraduate, in the time at our disposal, in any other than an introductory fashion; that specialization has been, and will continue to be in the future, the logical, necessary and beneficial application of this already widely recognized truth; that economic considerations should be recognized by a condensation of the present prolonged period of training regarded as necessary for specialization; that, if the prospective graduate's field of practice is to be strictly confined to a specialty, there are many details of medical knowledge which might very well be passed over lightly or even entirely eliminated from his course of undergraduate instruction; that clinical centers should be organized with the definite object of giving specialized training in particular fields, and, finally, that standard requirements of training for the practice of the various specialties should be elaborated and adopted officially. It would also be based on a recognition of, in general, three classes of prospective medical graduates; namely, first, those students who tend by inclination and ability toward the research, non-clinical or diagnostic laboratory fields of medicine; second, those students who desire to enter the field of true general practice; and third, those students who wish to enter active medical practice in one of the specialties, or whose ambition it is to become the heads of teaching clinics, in the specialty selected, as either whole or part-time men.

The first group would include those who desired to devote their full time to medical research or to the practice of such specialties as radiology, pathology, bacteriology, anatomy, and so forth. The second group would include those who wished to practice in small communities, rural districts or in any situation where they would be expected to treat all types of medical and surgical conditions. The training of the members of this group would be much along the lines of present undergraduate teaching; that is, as thorough a training as time permits in all the various clinical fields of medicine. The third group would include those who wished to confine their practice to specialties. It would, I am inclined to believe, constitute the larger percentage of the class, and would consist of those who were desirous of practicing their specialty, either alone, or as an integral member of a group clinic, in the larger towns and cities.

Based on the above principles, my suggestion would be that undergraduate medical training be revised along the following lines; that the undergraduate training be given over a period of forty-eight months; that it be given on the quarter system with three months the educational unit; that the first twenty-one months be devoted to instruction in the preclinical subjects; that the next three months consist of introductory clinical courses; that following this twenty-four month period of training three months be set aside as an obligatory holiday and that, on the student's return, the remaining twenty-one months be devoted entirely to clinical instruction.

To summarize, the undergraduate course would consist of: twenty-one months, preclinical; three months, clinical (general, introductory); three months, holiday (obligatory); three months, clinical (general, introductory); eighteen months, clinical (general and special).

For the first thirty months of such an undergraduate course the whole class, irrespective of their future plans, would, as a unit, take the curricular schedule as prescribed. The three months holiday period would be a break in the training, obligatory for all members of the class. It would give the student a chance to take stock of his record to date, to gain some perspective of his past and future course and to give some thought to the present trend in medicine. Above all, however, he would be expected, during this period, to arrive at some decision as to his future line of action, to decide in what field of medicine his preferences lay and to make what plans were necessary for their fulfillment.

Commencing with the final eighteen months of clinical work, the class would, with six months of general clinical instruction behind them, spread out fanwise into the various fields of medicine; one-half of their time being spent as a class unit in general clinical instruction in the various fields of



medicine, surgery and obstetrics and gynecology, as at present; while the remaining one-half of their time would be spent, as smaller groups, in study and clinical instruction in whatever field of medicine they had elected to major. At the end of this period, the class would, as a unit, be given comprehensive examinations in the general field of medicine, surgery, obstetrics and gynecology, with an additional, special examination in the field in which they had elected to major. The successful candidate would receive an M.D. degree together with some suitable recognition of the field in which he had majored. Following graduation, a period of internship and further postgraduate study, varying in time according to the field selected, would be required, before granting him recognition as being competently trained for practice in his selected field.

Instruction in the special field selected would be expected to include particular study and emphasis on those portions of general medicine or the related specialties which bear on it, either directly or indirectly. Thus, for example, the undergraduate specializing, let us say, in ophthalmology, either alone or in conjunction with otolaryngology, would be expected to receive particular instruction in conditions (such as nephritis, eclampsia, for example) which show distinctive changes in the eyegrounds. Similarly, the student majoring in general medicine, internal medicine, obstetrics, etc., would be expected in his turn to receive careful instruction in the use of the ophthalmoscope and recognition of retinal pathology, particularly as it bears on conditions in his field. On the other hand, it is difficult to see the rationality of requiring the individual, who intends to confine his practice to ophthalmology, to spend much time and study on the mastery of such aspects of medicine as the differential diagnosis and treatment of perforated duodenal ulcer, Pott's fracture, pneumothorax, amebic dysentery, and so forth.

In the suggested revision of the medical undergraduate course, a total of fifteen months is given for all members of the class in general medical and surgical clinical instruction, in which an acquaintance with such conditions would, as at present, be expected to be obtained. This falls little short of the present time allotted the undergraduate for clinical instruction in the various fields of medicine. On graduation, the student who had majored, let us say, in obstetrics and gynecology, should be in a position to be given as much responsibility as the average second year intern under our present system. He should, I believe, after two to three years of further postgraduate study, have the right to be considered a competent specialist in this field and the equal of the graduate, who, under our present system, finds it necessary to spend as much as four to five years in postgraduate training.

The revision of medical education which I have herewith suggested is an attempt to recognize, in undergraduate and graduate training, the phenomenal medical and economic developments of the past century. It is based on a recognition of the changing aspects of medical practice, and on the belief that the period of training necessary for the practice of a definitely limited specialty could be reduced by cutting down the time spent in study of those phases of medicine which do not, directly or indirectly, bear upon the special field in question. It is my belief that a reduction in the period of training obtained by such means would in no wise detract from the efficiency or capability of the graduate so trained. That there does exist, at present, the need for some form of revision of medical education, I believe, no thoughtful observer could deny. This outline is put forward simply as an indication of one means by which this need might possibly be met.

## Administration of Clinical Clerkship\*

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A review of the clerkship management in the class A medical schools of this country shows a conspicuous lack of uniformity. This lack of uniformity, to some extent, varies with the size of the school, but the greatest difference is found in comparable schools in cities of similar size.

The clinical clerk system of teaching has gone and is going through various stages of progress. There are now as many stages of development as there are schools. It varies from a very minor course in some schools to the most outstanding course in the curriculum in others.

The University of Oklahoma School of Medicine has 220 students, two hospitals with a total of 450 beds, and the instruction is given by visiting and part time clinical teachers.

At Northwestern University, in 1927, clinical clerkship took on a definite form as a separate course under the direction of Dr. Fred C. Zapffe who was designated supervisor of clinical clerks. This is the first instance of clinical clerkship in this country being supervised by one man. Since that date others have followed, more or less after the plan instituted at Northwestern University.

In 1929, at the University of Oklahoma School of Medicine, hospital clinical clerkship in the senior year was revised, and through the efforts of Dr. Wann Langston, administrative officer and acting dean, a clinical clerkship course was placed in the junior curriculum. This provided for one and one-half hours daily instruction by a supervisor. I received the appointment as supervisor and have devoted half time to this course since. In 1932, two associate supervisors were added. To this course the three of us devote from four to six hours daily.

One of the objectives at the beginning was to carry the preclinical work into the clinical study of medicine. This is a principle emphasized by Dean Lyon of the University of Minnesota, in 1929, when he said:

"I saw that if I were intelligently to discuss the relation between laboratory sciences and the work of the clinical years, I needed to know something about the clinical years. So I followed a master of diagnosis in his day's work. I saw him elicit reflexes and measure temperatures; I heard him speak of valves and pressure and enzymes and neurons and calories. I said: 'That man is not practicing medicine, he is practicing physiology.' I watched a therapist at the bedside and found that he was not practicing medicine but pharmacology. I saw a surgeon earning a thousand dollars; I discovered that he was not practicing surgery

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but anatomy, pathology, physiology and high finance. Finally, the relation I was seeking came suddenly into mental view. Anatomy and physiology and pharmacology and bacteriology and the rest are not the children of medicine; they are not the branches of an evolutionary tree; they are not handmaids; they are not stepping stones or preparatory stages, they are it. They are medicine itself."

Dr. Maurice H. Rees, dean of the University of Colorado School of Medicine and professor of physiology and pharmacology, has tersely pointed out that the practice of medicine is the true application of physiology. Dr. J. Parsons Schaeffer, professor of anatomy, Jefferson Medical College, has recently emphasized that "the application of anatomy and its correlation with medicine, surgery, and the special branches are the problems that concern us," and that "the important correlation of anatomy with clinical work must be made by the clinician himself." Many other authorities in their special preclinical works have emphasized the true relation of their specialties to the practice of medicine.

With these thoughts in mind, we undertook to make practical application of the entire preclinical work of the student to the clinical side of medicine. An attempt was made not only to break the long existing wide gap between the preclinical and clinical years, but to eliminate this gap entirely; not only to carry the present knowledge from the first and second years to the third year, but to keep these as a constant need in the minds of the students. To this end, every effort has been made and I feel that a marked degree of realization obtains at present. This is shown by the fact that the entire junior and senior classes are constantly going back to their preclinical professors for consultations on their clinical cases.

The second objective is to teach the proper approach to and method of studying patients at the bedside. In this the individual clerks are taught to think, observe, obtain history data, and to record. Dr. Lewis J. Moorman, dean of the University of Oklahoma School of Medicine, and past president of the Southern Medical Association, has emphasized that, "Clinical Medicine is not a school of dogma; it is a school of method. Progress in medicine is not hedged about by fixed limits, but may go as far as the individual's methods of observation and investigation can carry him." With this principle in mind, a supervisor is constantly in close contact with each of his clerks. All methods of observation and investigation are directed closely.

Before the clerk is allowed to enter the wards he is given thorough instructions in bedside conversation. Emphasis is placed on the necessity and manner of gaining the patient's confidence. He is taught that patients are individual and must be handled as such, and that their interest is always of first importance.

The third of the major objectives is the establishment of scientific

reading habits. The sources of readings, the interpretation of the data obtained, and the application of the particular information to the individual cases are closely supervised. Not only textbooks and journals with reports of recent work on the particular conditions diagnosed are required, but in many instances the clerk reviews the entire literature for the past five or ten years; sometimes at the request of the supervisor, but more often voluntarily. With these principles as outlined, the basic clerkship work is begun in the junior year.

#### JUNIOR CLINICAL CLERKSHIPS

At the beginning of the year, the junior class is divided into two sections, one going to the outpatient department specialties, and the other to the hospital clerkship. The hospital section is divided into three groups—medical, surgical and pediatric, each under a separate supervisor. These groups rotate on the respective services every six weeks and are in the hospital for one semester. At the end of the semester the sections alternate.

At the beginning of each semester, a week or ten days time is spent by the supervisor of the respective groups in lecturing and demonstrating the details of history taking and making physical examinations. The clerk is shown that the art of getting a good history and that accuracy of physical examination technique are his keys for success in clinical work. Thorough grounding in the knowledge of history and physical examination is thus assured before the clerk is assigned a case for ward work.

When the supervisor feels that his group is well enough informed on these points he assigns a case to each clerk for a complete work-up. These cases, one each week, are selected by the supervisor and only those which are more easily diagnosed are assigned at first. On the day the clerk is assigned a case, he sees and talks with the patient. He may not do more than get acquainted. If the patient is acutely ill or extremely nervous, the clerk merely makes enough observations to give a lead on the diagnosis. He then reads symptomatology so that when he returns he will be able to obtain all the information desired with as little disturbance to the patient as possible. He makes a complete physical examination where no contraindication exists, recording both positive and negative findings of every system. After this is done, the clerk is allowed to see the hospital record and secure the laboratory reports. He is not required in the junior year to do laboratory work, but is held responsible for complete knowledge of all that is done on his case with its indication and interpretation. He may also consult the senior clerk's record for comparison, and then has access to the notes of the attending physician.

A summary of the history and physical findings is included, and following this, the clerk writes his impression or diagnosis. From the sum-

mary, the clerk evaluates the findings and writes a complete differential diagnosis. This diagnosis is made on the probable, or strongly possible, conditions which may be present. If the anatomic location or other factors bring a number of other conditions into the realm of possibilities these are listed as such. This requires extensive reading, and a close supervision here is of inestimable value in saving the clerk's time.

The readings naturally are from textbooks at first. Here the clerk gets a concise conception of the condition diagnosed. But if the clinical picture is not typically that of the textbook, he may become confused. With extensive literature reading, however, he finds that the same condition in different individuals carries a relatively varied symptomatology. Then it is that he realizes that diagnosis is not a stereotyped simple matter. Then it is that he realizes that keenness of observation, keenness of interpretation of findings and keenness of application of properly assimilated information are his greatest assets. With the practice of extensive reading thus once begun the biggest problem of medical education and progress in medicine is solved for the individual. This extensive reading brings out a much more critical attitude on the part of the clerk toward the so-called spoon-feeding type of medical teaching. This encourages individual thinking and evaluation.

Each clerk is asked to give a complete reference of all his readings. This bibliography, at times, is as extensive as the literature on the case. It is my opinion that if clerkship during the junior year did no more than to start proper reading habits, the time would be well spent.

With the diagnosis made, the clerk is faced with the problem of correlating his knowledge of preclinical work to the condition under observation. The anatomy of the part or parts affected is reviewed. This covers both gross and at times microscopic anatomy. He reviews the gross anatomic relation, blood and nerve supply, with special emphasis on the surgical approach. The clerk uses charts, textbooks, and gross specimens in the anatomy department in this review. In doing this, he naturally covers a greater anatomic structure than the part involved. He sees this only as a part of the entire anatomy. He is enabled to visualize the structures and is thoroughly conversant on these. The physiology is studied with a more appreciative understanding than ever before. By a thorough review of physiology, the clerk begins to picture at the bedside normal functions of the organs involved. The pathologic physiology which results from the anatomic pathology is recognized more easily. A brief outline of these readings is made. The study of the pathology of the part or parts involved assumes a form of review of his previous pathology course. Gross specimens from the pathology department are studied. This enables the clerk to visualize the abnormal changes taking place in the individual. If



the case is surgical, if biopsies are had, or if autopsy is done, both gross and microscopic studies of the tissues are made. By this means the clerk is enabled at the bedside to picture in his own mind the changes taking place in the patient. Further he studies the action of all drugs used. He observes the clinical results, becomes familiar with dosages; therapeutic, toxic, and lethal, with indications and contraindications. Not only does he know the action for which the drug is given, but also its other actions which are too often overlooked in general work. Etiology, no less important than anatomy, physiology, pathology and pharmacology is given due emphasis in this course. If the etiologic factor is a known organism, its characteristics are studied in detail. Emphasis is placed on the mode or modes of entrance into the body and the mechanism by which structures and functions are altered. The results of these reviews have been most gratifying.

With the case worked up completely, the clerk writes the prognosis in the light of his record and the histories of similar cases. He states the probable outcome: first, as to life; second, as to degree of recovery; these with proper treatment and without treatment. The value of treatment is clearly seen by the clerk.

Each clerk, in turn, makes a report of his case to the group, is questioned and criticized freely by the other clerks and the supervisor. He may use the entire class period for presentation of his record and his comment on it, or he may be asked to summarize his case without the use of the chart. These clerks soon become very proficient in conducting a clinic of this type.

Progress notes are made by the clerk from the time he gets the case. He observes the management and makes recommendations or criticisms freely, giving his authority for such recommendations and criticisms. If the case is a surgical one, he studies the various techniques of surgery that may be used, and particularly the operation performed on his patient. Each clerk follows his case so long as the patient resides in the hospital. When the patient leaves the hospital, the clerk writes a summary and turns the entire record over to the supervisor, who makes suggestions and corrections, returning the record to the clerk, and in many instances goes over the entire case with him.

#### SENIOR CLINICAL CLERKSHIPS

The senior class is divided into four sections with from twelve to fourteen clerks in each section. Each section has eight weeks surgical and eight weeks medical hospital clerkship. Two sections work in the hospital wards at the same time; one on medicine, and one on surgery. The other two sections go to the outpatient department. These clerks have had the

fundamental clerkship course in the junior year so that they are able to do creditable work as senior clerks.

Each hospital clerk is assigned two selected cases each week for a complete work-up. The assignments are made in the receiving room by the admitting intern, and are posted on the seniors' bulletin board when the patient enters the hospital. The date, hour of admission, and room number are posted with the name. If the case is an emergency, the clerk is notified by telephone of the assignment. Each case assigned is worked up completely within twenty-four hours after admission. This includes history, physical examination, laboratory reports and diagnosis, when possible.

An effort is made to give each clerk as great a variety of cases as possible, with the minimum number of duplications. In this way each clerk has sixteen medical and sixteen surgical cases while on hospital clerkship. When the case is completed, one of the supervisors goes over it in detail and makes any corrections or suggestions necessary either on the chart or on a separate card which he leaves attached to the chart. If the work is satisfactory it is checked and becomes a permanent hospital record. If not satisfactory, any change necessary is suggested by the supervisor and carried out by the clerk. If there are too many corrections, the clerk is called and the supervisor reviews every detail with him, pointing out the strong as well as the weak points of the chart and the entire record is rewritten. In addition to the supervisor's suggestions, the resident staff, and frequently the visiting staff, make suggestions or comments on the record. The clerk meets the visiting staff member whenever possible and reviews the case with him.

Once the case is completed, the clerk is required to be familiar with the conditions he has diagnosed, just the same as he was in the junior year. More emphasis is placed on the clinical side of the case though the anatomy, physiology, pathology, etc., of the part involved are reviewed carefully. Therapeutic measures, with their indications, are studied. The clerk is not required to record these, but must be familiar with them when the case is brought up for discussion.

Three class periods each week, of one and one-half hours each, are held by the supervisor for each group. These periods are spent in one of the following ways: first, the clerk may be asked to present his case in its entirety before the remainder of the group for criticism and discussion. He may or may not bring the patient before the group, but usually he does if the patient is able to be brought to the class room; and second, if the patient is critically ill, the group may be taken to the ward where the clerk on the case reviews the record without the aid of the chart. Frequently, the visiting staff member is asked to be present when the clerk makes his report.

Timely progress notes are made by the clerk. On surgical cases, pre-operative and postoperative managements are closely followed, and the clerk, in most instances, is allowed to scrub at the operation. The notes are continued so long as the patient resides in the hospital, and a summary of the record is made when the patient is dismissed. If an autopsy is performed, the clerk is required to assist, study both gross and microscopic specimens, and make written report of the findings.

In the outpatient department, a similar type of work is done, but under the supervision of the various members of the visiting staff. One of the hospital supervisors has general charge of the outpatient clerks.

In conclusion, it is my opinion: that the basic clerkship course should be given during the junior year; that emphasis should be placed on the correlation of preclinical and clinical work; and, that close, constant supervision of methods, habits of reading and bedside study are, above all, most important.

I am indebted to Dr. Bert Keltz and Dr. George H. Garrison, associate supervisors, for their very efficient help in this work.

## Animal Experimentation and Medical Education

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The most important difference between medical education one hundred years ago and today is in the extensive development of the experimental method of investigation, particularly by the use of animals. At some time nearly every one of the more common animal forms with which civilized man comes into contact has proven a valuable adjunct to the completion of some important investigation that has advanced not only medical knowledge but science in general. With the extension of this method opposition has arisen. It is not the purpose of this paper to discuss the fallacies and illogic expressed in the attitude and activities of the antivivisectionists, but the importance of their propaganda must not be minimized.

Whenever, in the past, antivivisection activities have assumed militant form, the task of opposing them has, to a large extent, fallen on the men who were actively engaged in investigations involving the use of animals, usually the workers in the fundamental sciences and in surgery. The task of perfecting an organization, the work of raising money to defray expenses, etc., has been given over to these groups.

The Council on Health and Public Instruction of the American Medical Association has, in the past, done valuable service in providing information for the interested public and has unquestionably wielded considerable influence on the trend of activity. The rank and file of the medical profession also, on special occasions, have taken a very active part in the controversies that have arisen.

With the organization of the National Antivivisection Society, opposition to animal experimentation has taken on renewed activity. It is stated that the salary of the secretary of this organization has been paid by a contribution from a noted actor. A number of large bequests have been made to this organization, one of which recently became available for use. Immediately the Society announced its plan to introduce antivivisection bills in the legislature of twenty states within the next year.

In the regular session of 1929 such a bill was introduced in the Senate in Illinois. The Illinois Society for Protection of Medical Research organized the various groups of the state that might be expected to have a fundamental interest in the problem. These consisted of the state medical, dental, veterinary, chemical and agricultural societies, women's clubs and parent-teacher organizations. The bill was killed in the Senate committee.

Two years later another bill was introduced in the House of Repre-

sentatives. A similar organization was perfected and again the bill was killed in committee. On both these occasions the administrative authorities of the various institutions involved took a very active part. Generally, however, such activities have not been recognized as an integral part of the duties of the administrative officers.

With the development of this widespread menace to further progress in scientific medicine, it is apparent that the policy of simply meeting the antivivisectionists in court or legislature is not enough. They will keep such a battle going indefinitely. One must, at least, pay tribute to the fixity of purpose displayed by these misguided zealots. Each defeat only spurs them to greater effort.

It appears that there is little hope of relief from these gadfly attacks, except in a general movement over the country to carry the fight into their own territory by securing the passage of laws which will positively legalize animal experimentation.

It is argued, correctly, that this will not insure surcease from the attacks. It is, however, much more difficult to repeal a law than to get it passed. Once such permissive legislation is passed, and especially if subsequently tested in the courts, the antivivisection group will find themselves in a position where the potential threat of their activities will be minimized greatly.

Those actively engaged in scientific investigation are inclined to be very reluctant about the institution of legal regulatory measures; perhaps, correctly. If, however, the current agitation continues, there may be only two alternatives, total abolition or regulation.

While keenly conscious of the desirability of the greatest freedom in investigative effort, the author feels that some form of regulation will be a protection for research. If so, the moral effect of initiating such regulation from within, rather than submitting to regulation imposed by a lay group, will be obvious.

It will probably be necessary to specify what institutions may carry out experiments on animals. It might also be desirable to make it possible for certain individuals to carry out such investigations under special permits. This would prevent the very objectionable practice of irresponsible students experimenting on animals outside institutions of recognized responsibility, a practice that furnishes the antivivisectionists with more ammunition than all of the work of the laboratories combined. Private diagnostic laboratories could properly be classified as scientific institutions.

As a moral and ethical obligation, administrative officers and directors of laboratories should exercise still greater care in regard to the kind of experiments that are authorized and especially in the publication of experi-

mental details that may be misinterpreted by lay readers who lack the technical knowledge necessary for correct judgment and logical evaluation of such procedures, or the ethical integrity to quote honestly and fairly.

The necessity is arising for each and every institution concerned with scientific progress to incorporate into its program of activities some plan of straight-forward procedure that will ultimately give it a definite place in the nation-wide battle that seems imminent.

It is suggested that educational institutions, particularly medical, dental and veterinary schools, might institute programs of instruction, not only for their students but for the public at large, that would have as their objective the spreading of information concerning the value and importance of scientific experiments on animals, the principles involved, as well as the consequences of antivivisection activity.

The Association of American Medical Colleges might properly assume as one of its duties the outlining of such instructional efforts, and advising possible participants as to methods and informative material. There is already published a great deal of material, but some of this is no longer suitable for the present purpose. The American Medical Association has published a large series of pamphlets that could be used as one source of material. However, a great deal of valuable literature is to be found elsewhere. These two associations might be able to develop, in conjunction with the Research Information Service of the National Research Council, a bibliographic plan that would make available the best literature on the subject.

The Association of American Medical Colleges might also render great service in the preparation of model laws for presentation in state legislature. In this way each group could profit by the experience of those who have already initiated active measures.

One thing is certain, namely, that the organized professional groups must take a more active part in this fight if humanity is to continue to profit by the acquisition of new knowledge derived from animal experiments. The comparatively small group of active workers in these fields can no longer carry the load.



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*Data on Licensure for 1933*

The *Journal of the American Medical Association*, April 28, 1934, publishes the data on the results of state board examinations for licensure for 1933 collected by the Council on Medical Education and Hospitals.

Of particular interest to medical schools are the data showing failures of their graduates, but in interpreting these figures it must be borne in mind that they represent "examinations" and not "examinees." It is well known that a candidate may take more than one examination and thus increase the percentage of failures charged to his alma mater. According to information given by one school one of its graduates took as many as five examinations, one in each of five states, and failed each time. Furthermore, some states report more failures than others, perhaps, due to the fact that the examination is a more difficult one than it is in states which do not show so many failures or percentages of failure. Nevertheless, the data present many items of interest, susceptible of many interpretations.

Sixty-six approved medical schools, located in the United States, are represented in this report, nine Canadian schools and many foreign medical schools. The unapproved schools are also represented in the statistics by graduates.

The sixty-six schools of the United States are represented by 5,040 examinations, 5 per cent resulting in a failure to pass. In 1932, there were 5,624 examinations with 7.7 per cent of failures, 1.1 per cent more than in 1931.

Twenty-five schools, with 1,490 examinations charged against them, 29.6 per cent of all examinations, did not have any failures; 1 school, with 138 examinations, had 0.7 per cent failures (one examinee); 14 schools had between 1 and 2 per cent failures (18) in 1,155 examinations, 22.9 per cent of the total examinations; 6 schools had between 2 and 3 per cent failures (16) in 584 examinations, 11.6 per cent of the total examinations; 3 schools had between 3 and 4 per cent failures (10) in 277 examinations, 5.5 per cent of the total examinations; 2 schools had between 4 and 5 per cent failures (6) in 144 examinations, 2.9 per cent of the total examinations; 4 schools had between 5 and 8 per cent failures (21) in 263 examinations, 5.2 per cent of the total examinations; 4 schools had between 8 and 10 per cent failures (35) in 374 examinations, 7.4 per cent of the total examinations; 3 schools had between 10 and 12 per cent failures (16) in 166 examinations, 3.3 per cent of the total examinations, and 4 schools had between 13 and 15 per cent failures (41) in 300 examinations, 5.9 per cent of the total examinations.

Of the nine Canadian medical schools, 5 did not have any failures. The remaining schools had 7.8, 15.4, 60 and 77.8 per cent failures, respectively. In the 122 examinations taken by graduates of Canadian schools there were 19 failures, 15.5 per cent. These figures cover only examinations taken before examining boards in the United States.

Of the 203 graduates of foreign medical schools, 74 failed, 36.5 per cent. Of

the 277 graduates of unapproved medical schools, 163 failed, 58.8 per cent.

Fifty-one of the 66 approved medical schools of the United States had less than 5 per cent failures in 3,650 examinations, 72.4 per cent of the total examinations, representing 51 failures. Eight schools had between 5 and 10 per cent failures (56); 7 schools had between 10 and 15 per cent failures (57).

Four schools had 10, 10, 11 and 12 failures, respectively. One school, in 166 examinations had 22 failures, the highest number of failures reported for any one school.

These figures show decided improvement over the data reported for 1932.<sup>1</sup> In that year only 17 approved schools had no failures and only 25 schools had less than 5 per cent failures. The highest percentage of failures in that year was 18.4 per cent as against 14.9 per cent for 1933. The question will be raised, is this due to less rigid examinations or a better quality of graduate?

It is also shown that 19 states now require internship for licensure. Only 8 of these states have medical schools. Thirty-nine states and the District of Columbia require 2 years of college work for admission to medical school; 4 states require only 1 year of college work and 5 states still hold to high school graduation or its equivalent. However, these figures do not represent actual practice among state boards because in all but one state the actual requirement laid down by the board of examiners is the 2 years college standard despite the fact that the law may not be in any agreement.

Thus, much progress being made in many directions even in that 584 fewer examinations were taken in 1933 than in 1932. It is to be hoped that this represents that many fewer physicians li-

censed to practice, although it is no doubt true that many interns are electing to remain in service for one or more years before applying for a license to practice because of unsatisfactory economic conditions. They are waiting for better times before venturing to practice on their own. Of course, that is a strong guarantee of a better preparation for practice and that many more better prepared physicians. Time alone can solve these problems.



### *Data on Interns in Massachusetts Hospitals*

*The New England Journal of Medicine*, April 26, 1934, publishes some significant data on interns and internships in Massachusetts hospitals.

Of the 312 interns in these hospitals, one-half graduated in the upper third of their class, and one-fifth in the lower third. Hospitals offering the best opportunities for interns, naturally have the best interns from a scholastic point of view—and vice versa. The single or nonrotating services seemingly are more attractive than the rotating service, and hospitals with a small number of beds per intern are preferred over hospitals with a large number of beds per intern. A large number of new patients per year does not seem to be a determinative factor in choice of hospital.

For instance, Hospital A, with 11 beds per intern and 196 new patients per year per intern, has 23 interns, 75 per cent in the upper third of their class, and 25 per cent in the middle third. Hospital B, with 11 beds per intern and 200 new patients per year per intern, had 35 interns, 67 per cent in the upper third, 29 per cent in the middle third and 4 per cent in the lower third of their class. Hospital C, with 25 beds per intern and 525 new patients per year per intern, had 16 interns, about equally distributed among

1. EDITORIAL: *J. Am. Assoc. Med. Colls.*, July, 1933, p. 241.

the upper, middle and lower thirds of their class. Hospital D, with 55 beds per intern and 900 new patients per year per intern, had 6 interns, one of these from the upper third, 3 from the middle third and 2 from the lower third of their class.

Hospitals A and B had a single service; hospitals C and D a rotating service. The report states that an appreciably poorer type of student is trained in hospitals offering a rotating service than in those offering only "medical" or "surgical" services.

In too many hospitals the intern's work is haphazard and superficial. The self-taught intern does not acquire much useful knowledge. He needs to be drilled in the art of practice, an art that can only be mastered by hard work intelligently controlled.



#### *Additional Data on Study of Applicants*

Further study of the application record of the freshman class of 1932 discloses the fact that, as is to be expected, every medical school admits single and multiple applicants. Of the 79 schools included in the study, 25 admitted more of the multiples than of the singles. In 10 of these the preponderance of the multiples was very marked. It is not possible to draw any conclusions from these figures although it may be assumed, perhaps, that the singles succeeded in gaining admission to the school of first choice. Some of the multiples made only two applications, but a considerable number of the multiples in the "tens," "twenties," and "thirties" succeeded in getting placed. The applicants to the medical school of their own university increased the numbers of the singles considerably.

Of the 7,246 individuals making single applications in 1932, 4,268, or 58.9 per cent were accepted. However, only 3,702,

or 86.7 per cent, of those accepted actually matriculated. They represent 57 per cent of the 1932 freshman class.

Of the 5,034 individuals making more than one application, 3,084, or 61 per cent, were accepted. Of these, 2,788, or 90.4 per cent of those accepted, matriculated, constituting 43 per cent of the 1932 freshman class.

The total class represented 88.1 per cent of those accepted and approximately 53 per cent of the total number of applicants in 1932.

What became of the 12 per cent accepted who did not matriculate? The assumption is plausible that many of these decided to remain in college for additional work and some of them may have decided not to study medicine, for one reason or another, perhaps, in most cases because of lack of finances, a reason which each year leads to the withdrawal of a considerable number of students despite the availability of student loan funds.

In most cases, the multiple applicants had only one acceptance. In others, each application was accepted. One curious instance is that of an individual who made seven applications, each being accepted but he failed of securing promotion to the sophomore year.

The distribution of the single and multiple applicants according to whether they entered the medical school of their own university or some other medical school is as follows: Single applicants in own medical school, 1,848; in other medical school, 1,831; multiple applicants in own medical school, 576; in other medical school, 2,235. The nine medical schools not having a university connection account for 803 of the 6,490 matriculants. Of this number 342 were single and 461 multiple applicants.

The largest number of multiple applicants in any one school was 134 in a class of 145; next, 128 in a class of 159;

125 in a class of 160, and 104 in a class of 173 students. All but these four schools had less than 100 multiples. Among the schools having more than 100 students in the class, the smallest numbers of multiples were 5 in a class of 104; 9 in a class of 121; 12 in a class of 119 and 120, respectively.

### ♦ ♦ *Inspection of Medical Schools and Medical Survey*

At a meeting held in Cleveland, June 9, 1934, representatives from the Association of American Medical Colleges, the Council on Medical Education and Hospitals of the American Medical Association and the Federation of State Medical Boards met to discuss plans for the forthcoming inspection of medical schools.

Dr. Herman G. Weiskotten, dean of the College of Medicine of Syracuse University, has been selected to have charge of the inspection work. A two years leave of absence from his post at Syracuse University has been granted him. He will be assisted in the work by various representatives from this Association and from the Federation of State Medical Boards, chosen from time to time here and there.

It is planned, further, to appoint a committee representative of the three groups participating in the survey which will draw a plan of procedure and of objectives. Names for membership on the committee were submitted and referred to the chairman of the Council on Medical Education and Hospitals who will make the selection. The appointments will be made shortly and announced. The size of the committee has not been determined yet but it will probably consist of seven or nine individuals, each one representing the various interested groups and fields in medical education in order to give assurance of as complete a report on the survey as needs to be made.

Unless a change in plan seems necessary, the inspection work will begin with

the opening of the 1934-1935 college sessions, and it will continue during this and the 1935-1936 session when it is felt the work can be completed.

This is a most momentous undertaking from which the greatest possible good will result, hence the active and interested cooperation of everyone who is in any way connected with or is a part of medical education and teaching is requested. No similar piece of work has ever been done and expectations run high and wide as to what it will accomplish.

### ♦ ♦ *Fellowship Pamphlet*

The financial assistance given by the Rockefeller Foundation made possible the revision of the pamphlet setting forth opportunities for research work by graduates of the medical schools of the United States and Canada. This revision was made because of the requests coming from many sources that it be made at this time.

The pamphlet contains all information available. Additions were made and some opportunities listed in the first edition are no longer available. The listing is as complete as it could be made. Many aids were withdrawn by former sponsors for various reasons. Absence of mention, therefore, of former grants means not an oversight on the part of the reviser but a request to omit.

Copies of the pamphlet may be obtained in the office of this Association and from the Rockefeller Foundation, 49 West 49th Street, New York City.

### ♦ ♦ *"Premedical" Courses*

At a meeting of the Executive Council of the Association held June 10, 1934, a recommendation was adopted that the Council is not in favor of special courses being given by colleges of liberal arts and other educational institutions for students expecting to enter on the study of medicine.

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## College News

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### *Jefferson Medical College*

The 109th Annual Commencement was held June 1. The valedictory address was delivered by Dr. Ralph Dorn Hetzel, president, the Pennsylvania State College. The subject of the address was "Some Current Assets and Liabilities."

The graduating class numbered 143 bringing the total number of graduates to 15,900. The graduates were registered from twenty-four different states and insular possessions and one foreign country. Forty-five members of the graduating class were commissioned as First Lieutenants in the Medical Officers' Reserve Corps of the United States Army.

The annual alumni dinner was held May 31, at which time busts of Mr. Alba B. Johnston, president of the Board of Trustees, and Dr. Ross V. Patterson, dean of the college and Sutherland M. Prevost, professor of therapeutics, were presented to the college.

Announcement was made by Mr. Alba B. Johnston, president of the Board of Trustees, that Dr. Ross V. Patterson, dean of the college, had been elected Sutherland M. Prevost Professor of Therapeutics, succeeding Dr. E. Quin Thornton, who has been made emeritus Professor of Therapeutics. Dr. Patterson is a graduate of the Jefferson Medical College, Class of 1904, and has been dean since 1906.

Dr. Michael A. Burns, associate professor of nervous and mental diseases, has been elected professor of neurology. Dr. Burns is a graduate of the Jefferson Medical College, Class of 1907, and has been connected with the teaching corps of the college since 1908.

The graduating class of 1934 presented a portrait of Dr. J. Torrance Rugh,

James Edward Professor of Orthopedic Surgery, to the college on April 27, 1934.

The following promotions in the teaching corps have been made during the past session: John M. Fisher, M. D., clinical professor of surgery; John T. Brundage, Ph. D., M. D., assistant professor of pharmacology; Robert M. Lukens, M. D., assistant professor of bronchoscopy and esophagoscopy; Henry B. Decker, M. D., associate in dermatology; Henry I. Seelaus, associate in surgery; Arthur J. Wagers, M. D., associate in laryngology; William J. Harrison, M. D., associate in ophthalmology; Harold W. Stewart, M. D., associate in pathology.

\* \*

### *Syracuse University College of Medicine*

Dean H. G. Weiskotten has been granted a two years leave of absence during which time he will carry on as field inspector of medical colleges, a piece of work sponsored jointly by the Council on Medical Education and Hospitals of the American Medical Association, the Association of American Medical Colleges and the Federation of State Medical Boards.

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### *Western Reserve University School of Medicine*

Awards of fellowships and scholarships on the Crile Foundation were made to the following students: First year class: Franklin Alois Benes, in biochemistry; and Jacob Michael Werle, in histology.

Second year class: Allan Bookatz, in bacteriology; John Beverly Bull, in physiology; Nathan Pinchas Frolkis, in anatomy; James Linek, in biochemistry; Harold Victor Morley, in anatomy; Donald Curtiss Snyder, in physiology; Eugene Joseph Stanton, in pharmacology; and

Paul Werle, in anatomy. Third year class: Paul Mitchell Glenn, in pathology; Miss Mary Ruth Oldt, in pathology; Kenton Robinson Phelps, in pediatrics; and William Benjamin Seymour, in medicine.

The Crile Foundation was established by Dr. George F. Crile, professor emeritus of surgery, to provide training in summer months in investigation of medical problems to promising students.

♦ ♦

*University of Toronto  
Faculty of Medicine*

The following medals, prizes, scholarships and fellowships were awarded by the senate of the university.

SIXTH YEAR: Gold medal, Miss J. C. Gray, B. A.; silver medal, T. Kajiyama, B. A., and R. C. Dickson; Ellen Mickel Fellowship, R. L. Noble; Chappell Prize in Clinical Medicine, Miss J. C. Gray, B. A.; Ontario Medical Association Prize in Preventive Medicine, Miss J. C. Gray, B. A.; David Dunlap Scholarship, R. L. Noble Canadian Medical Institute Prize, R. C. Dickson.

UNDERGRADUATE: David Dunlap Scholarships: fifth year, no recommendation; third year, J. L. Cathie; Baprie Scholarship, T. P. Keast, B. Comm.

GRADUATE: Reeve Prize, D. L. Selby, B. A., M. D.; Lister Prize in Surgery, H. F. Mowat, M. D.

♦ ♦

*New York University  
University and Bellevue Hospital  
Medical College*

Dr. Harold D. Senior was honored by the unveiling of an oil portrait on the occasion of his twenty-fifth anniversary as professor of anatomy and director of the anatomic laboratories.

♦ ♦

*Wayne University  
College of Medicine*

Dr. William M. Donald has been appointed head of the department of medicine.

*University of Cincinnati  
College of Medicine*

Dr. Albert Friedlander, for many years professor of medicine, has been appointed to succeed Dr. Bachmeyer as dean. He will assume his new duties September 15.

♦ ♦

*University of Illinois  
College of Medicine*

At the fifty-first commencement, Dr. Arvid Wallgren, professor of pediatrics and chief of the Children's Hospital of Gothenburg, Sweden, delivered two lectures on the general subject of tuberculosis. These lectures are delivered under the auspices of the Theodore B. Sachs Residency which was established for a five year period at the college by the Chicago Tuberculosis Institute.

The Alumni Memorial lecture was delivered by Dr. Edward Wm. Alton Ochener, professor and head of the department of surgery in Tulane University of Louisiana.

The college will have an exhibit at the Century of Progress, in the Hall of Science, in connection with the Hate Board of Health. The exhibit is devoted to problems of prevention, diagnosis and treatment.

♦ ♦

*University of Oregon  
Medical School*

Dr. John A. Fulton, Sterling professor of physiology, Yale University School of Medicine, delivered the tenth annual Noble Wiley Jones lectures. His subjects were "Autonomic Representation in the Cerebral Cortex" and "The Functions of the Frontal Lobes."

♦ ♦

*University of Louisville  
School of Medicine*

W. B. Saunders Company prize, Jack L. Chumley. Medical publications to the value of \$50 are offered annually to the freshman who has done the best work and



passed the best examination in premedical chemistry and in physiological chemistry by the end of the freshman year.

D. Appleton and Co. prize, Clarence Strand. Medical publications to the value of \$50 are offered annually to the student who has done the best work and passed the best examination in the medical chemistry by the end of the junior year.

Henry Enos Tuley Memorial prize, David S. Traub. Friends of the late Dean Tuley in 1923 subscribed \$1,050 which has been turned over to the trustees of the university to be held in trust forever, the income to be awarded annually at Commencement to the undergraduate who has submitted by March 15, the best essay on "The Ideals of Medicine."

Dr. Atwood P. Latham Memorial Prize in Anatomy, Edgar C. White. In 1928 Mrs. Mary B. Latham donated \$500 to the university in memory of her husband, the income of which is to be awarded annually to the first year medical student who is adjudged most proficient in anatomy.

Dr. Norvin Green Memorial prize, Claud W. Chappell. A fund was established in 1929 by Miss Susan T. Green in memory of her father, Dr. Norvin Green, who was graduated from the University of Louisville in 1840, to provide a prize of \$50 to be awarded annually to that member of the graduating class who offers the best thesis based upon original research in any branch of medical science, or in case no candidate offers a thesis, it may be awarded to the best all round student.

♦ ♦

#### *Vanderbilt University School of Medicine*

June 13, a postgraduate course in public health was begun. It will continue for twelve weeks. The course is open to qualified physicians who wish to devote

themselves to public health work and to health officers. The course is given in cooperation with the Tennessee State Department of Public Health.

The class is limited to ten students. Registration fee is \$10.

♦ ♦

#### *Long Island College of Medicine*

The \$25,000.00 gift from the Misses Jennie A. and Cornelia Donnellon has been utilized, according to their wishes, in the purchase of their former residence adjoining the college and in equipping it as a student recreation center. The basement has been converted into a cafeteria; the first floor consists of lounge rooms and card room; the second and third floors of study and game rooms.

♦ ♦

#### *Harvard University Medical School*

The Rockefeller Foundation has made a gift of \$80,000 to establish and maintain a psychiatric unit at the Massachusetts General Hospital. It will be under the direction of Dr. Stanley Cobb, professor of neuropathology.

Commonwealth Fellowships. Office Surgery: Designed for physicians in general practice. Subjects studied will be surgical problems met in office practice. Course is for one month. Stipend, \$250 per month.

Medicine, Obstetrics, Pediatrics: The courses are from one to four months. In addition to monthly stipend, students receive travel expense from place of residence to Boston and return. Stipend, \$250 per month.

All applicants for these fellowships must be graduates of a Class A medical school; a member of the Massachusetts Medical Society in good standing; must have been in practice at least five years; should be between 30 and 35 years of age and resident of a town of less than 10,000 population.

Application blanks may be obtained from the Commonwealth Fund, 41 East 57th Street, New York City, or from the Courses for Graduates, Harvard Medical School, 25 Shattuck Street, Boston.

♦ ♦

#### *Medical College of Virginia*

Commencement exercises closing the ninety-sixth session were held May 29. Dr. Francis Pendleton Gaines, president of Washington and Lee University, Lexington, Virginia, was the speaker.

The commencement sermon was given by Dr. Churchill J. Gibson, rector, Saint James Episcopal Church.

The honorary degree of doctor of science was conferred on Dr. R. B. Teusler, director of Saint Luke's International Medical Center, Tokyo, Japan. Dr. Teusler is an alumnus.

There were 97 graduates in medicine.

♦ ♦

#### *University of Chicago*

##### *Division of the Biological Sciences*

The Department of Applied Research of Standard Brands, Inc., has established a fellowship in the department of Obstetrics and Gynecology for the support of further studies along the line of Dr. Hesselstine's research on "The Pathogenicity of Monilia." They have suggested as a subject, "Micro-organisms of the genito-urinary tract with special reference to mycotic organisms." They are contributing \$4,500 for this study.

Dr. Kharasch in the department of Chemistry and Dr. Adair are cooperating on a study of the effect of ergot on uterine muscle by the strip method. This study is to include not only the effect of various ergot fractions upon uterine strips, but the effect of synthetic materials and the antagonism of ergot and substances which Dr. Kharasch in recent studies found to interfere with a colorimetric estimation of the alkaloids of ergot. This is a continuation of a study which Dr. Kharasch has been making

in the department of Chemistry under special funds provided by the Research Corporation of New York, and will continue to be financed by this corporation.

About two years ago a fund was started to establish the Arno B. Luckhardt Fellowship in recognition of Dr. Luckhardt's services in research and teaching in the medical sciences.

It is hoped eventually to accumulate \$30,000 for this fund so that a fitting fellowship may be permanently established.

Two newly appointed National Research Council Fellows will carry on their studies at the University of Chicago during the academic year 1934-35. Mr. Leon A. Pennington, at present Graduate Fellow in Psychology at Brown University, will work under the supervision of Dr. Lashley. Dr. Herbert Shapiro, Research Assistant in Physiology at Princeton, will work with Dr. Ralph Gerard in physiology.

The Howard T. Ricketts prize was awarded to Drs. Paul E. Steiner and Thomas C. Grubb for the best results in research in bacteriology.

The Harry Ginsburg Memorial prize for research in physiology was awarded to Samuel Platt and Abraham Doktorsky.

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#### *New York Homeopathic Medical College*

Bequests: In the will of the late Mr. Charles Strauss, a former trustee of the institution, \$10,000; Marjorie R. Milbank, \$2,500.

Appointments to the Board of Trustees: Alumni Elections: Drs. J. Ivimey Dowling and Henry B. Minton. New members: Mr. Samuel R. Milbank, of the firm of John Struthers & Company; Mr. Joshua B. Everett, vice-president of the Bankers Trust Company, and Mr. J. Frederick Eagle, of the law firm of Patterson, Eagle, Reno, Greenough & Day.

The commencement exercises were held

June 5. Dr. Harold Rypins, secretary of the New York State Board of Medical Examiners, was the commencement speaker.

The following resolution has been unanimously adopted by the faculty of the college, the Medical Board of the Metropolitan Hospital, and the New York County Homeopathic Medical Society:

"Resolved: That the cordial relations with the extension of teaching facilities to the college, that have existed since the foundation of the Metropolitan Hospital, be continued in the present form and that in addition to the present organization three members representing the college be elected ex-officio members of the Medical Board and of the Executive Committee of the Medical Board, and that furthermore, these three members be defined as the chairman of the College Committee of the Board of Trustees of the Medical College, and two administrative officers of the Medical College."

Mr. Charles D. Halsey, president of the Board of Trustees; Dr. Claude A. Burrett, dean of the college, and Dr. J. A. W. Hetrick, assistant dean, have been named as ex-officio members of the executive committee of the board of the Metropolitan Hospital.

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#### *George Washington University School of Medicine*

The March lecture in the Smith-Reed-Russell series was delivered by Dr. John M. Wheeler, New York. Dr. Wheeler chose for his subject, "Exophthalmos."

♦ ♦

#### *University of Texas Medical Branch*

Dr. W. F. Braasch of the Mayo Clinic delivered an address to the junior and senior students early in April. The previous week, Dr. J. R. McCord, professor of obstetrics at Emory University, addressed the students and was the principal speaker at the Alpha Omega Alpha initiation ceremonies held this year.

Dr. Edward Randall, emeritus professor of materia medica and therapeutics, and now a member of the Board of Regents of the University of Texas, addressed the junior and senior classes on "Medical Ethics."

♦ ♦

#### *Louisiana State University Medical Center*

The Committee on Admissions announces that beginning with the session 1935-1936 the requirements for admission will be increased from 2 to 3 years of college work, the required courses to be arranged according to the extended number of years.

♦ ♦

#### *University of Maryland School of Medicine*

The division of medical extension of the University of Maryland conducted a combined review course for physicians June 4-22. Morning lectures dealt with advances in diagnosis and treatment in subjects chiefly from the field of general medicine and surgery, with a few lectures devoted to the specialties. The afternoons were given over to the laboratory methods. The class was divided into groups for ward rounds, and a clinic was held daily. The matriculation fee was \$25 for registrants of Maryland, persons coming from other states paid \$50. The course was limited to twenty men.

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#### *University of California Medical School*

The University of California, cooperating with the Metropolitan Life Insurance Company, began a practical training course for health officers, May 14, to continue twelve weeks. Participants in the course have access to well organized urban and rural health departments, where practical field observation and training are available and biometric and bacteriologic laboratory facilities are at hand.

*Duke University  
School of Medicine*

May 12, Dr. H. E. Sigerist, professor of medical history in the Johns Hopkins University School of Medicine, gave a lecture and also gave the Alpha Omega Alpha address; subject, "Civilization and Disease."

On the same date, Dr. Robert W. Johnson, Jr., assistant professor of orthopedic surgery at the Johns Hopkins University School of Medicine, lectured on "Fractures."

During the spring quarter, the following students were elected to the Alpha Omega Alpha fraternity: Eugene N. Scadron and Edwin M. Rucker.

At the graduating exercises held at Duke University June 6, 33 medical students received the degree of Doctor of

Medicine and five received the degree of Bachelor of Science in Medicine. At the same time, 22 nurses received their diplomas in nursing.

♦ ♦

*Wake Forest College  
School of Medicine*

Dr. Thurman D. Kitchin, president of the college and dean of the medical school, has written a book, entitled "The Doctor and Citizenship."

Dr. Herbert M. Vann, professor of anatomy, and Dr. E. S. King, professor of bacteriology, will give a course in hygiene during the summer session.

Dr. George C. Mackie, professor of physiology, has gone to Saskatchewan for the summer to do special work in neurology.

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## General News

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*New York Academy  
of Medicine*

The Seventh Annual Graduate Fortnight of The New York Academy of Medicine will be devoted to a consideration of gastrointestinal diseases. The Fortnight will be held October 22 to November 2.

Sixteen important hospitals of the city will present coordinated afternoon clinics and clinical demonstrations. At the evening meetings prominent clinicians from various parts of the country who are recognized authorities in their special lines of work will discuss the various aspects of the general subject.

A comprehensive exhibit of anatomic, bacteriologic and pathologic specimens and research material will be shown. Many of the exhibits will be demonstrated.

The profession generally is invited to

attend. A complete program and registration blank may be secured by addressing Dr. Frederick P. Reynolds, New York Academy of Medicine, 2 East 103d Street, New York City.

♦ ♦

*Capps Prize Award*

The Institute of Medicine of Chicago has awarded the Joseph A. Capps Prize for medical research for 1933 to Dr. Gene H. Kistler, University, Ala., for his paper on "Sequences of Experimental Infraction of the Femur in Rabbits." The prize of \$500 is awarded annually for meritorious medical research by a graduate of a Chicago medical school, completed within two years after graduation.

♦ ♦

*Guggenheim Foundation Grant*

Michael Heidelberger, Ph. D., associate professor of biologic chemistry at Colum-

bria University and research chemist to Presbyterian Hospital, has recently been awarded a grant by the Guggenheim Foundation for research on the molecular weight of thyroglobulin at Uppsala University, Sweden.



### *Mallory Institute of Pathology*

This newly created institute of the Boston City Hospital was dedicated December 13. It is named in honor of Dr. Frank Burr Mallory, who was pathologist from 1908 until his retirement in 1933. He was associated with the laboratory since 1891, when he was appointed assistant. The new building consists of a basement, four main floors and a penthouse. Quarters have been provided for the medical examiner service, which has been affiliated with the department for several years. The purpose of the Institute is to conduct routine pathologic and bacteriologic work of the Boston City Hospital and to investigate cases referred to the medical examiner's office of Suffolk County, South, in conjunction both with undergraduate and with graduate teaching.



### *American Pediatrics*

The American Board of Pediatrics completed its organization recently. The following officers were elected: Borden S. Veeder, St. Louis, president; Henry F. Helmholtz, Rochester, Minn., vice president, and Charles Anderson Aldrich, Winnetka, Ill., secretary. Other members of the board are Philip Van Ingen, New York; Harold C. Stuart, Boston; Alfred A. Walker, Birmingham; Wilburt C. Davison, Durham, N. C.; Franklin P. Gengenbach, Denver, and Edward B. Shaw, San Francisco.

Three groups were defined for purposes of certification as follows:

Group I. Physicians who have limited their practice to pediatrics for more than

ten years may be certified on their records until September, 1936; after that date examination will be required.

Group II. Physicians who have limited their practice to pediatrics for from six to ten years must submit evidence of at least one year's hospital training in a recognized pediatric center and of continued work in some pediatric institution or organization. Examination is required in this group.

Group III. Graduates of five years' standing or less must submit evidence of having completed one of the following forms of training: (a) one year in a general hospital with two years in a pediatric center or three years in a pediatric center; (b) two years' service in a pediatric center plus two years' practice in pediatrics, including continued work in some pediatric activity; (c) one year's service in a general hospital, one in a pediatric center plus three years' specialized practice of pediatrics including connection with some pediatric activity. Examination is required of all applicants.

The Board was founded by the joint action of the American Pediatric Society, the American Academy of Pediatrics and the section on pediatrics of the American Medical Association, each of which appoints three members.



### *Strittmatter Award*

The eleventh annual Strittmatter Award under the auspices of the Philadelphia County Medical Society was presented to Dr. Philip F. Williams for his services in the field of maternal mortality. Dr. Williams is assistant professor of obstetrics in the School of Medicine of the University of Pennsylvania. The award, established by Dr. Isidor P. Strittmatter in 1923, is a gold medal given to a physician who has rendered meritorious service or made a valuable contribution to the healing art or to one of the fundamental sciences of medicine.

## Abstracts of Current Literature

### *Asphyxiation—Basic Problem in Medical Education*

As a basic problem in medical education, asphyxiation may be dealt with in the curriculum of the medical school, first, by a policy of segregation in which emphasis is placed on all matter in the department of anatomy, physiology, therapeutics, thoracic surgery, pathology, electrodynamics and any other department which may have a bearing on asphyxiation, and, secondly, by pursuing a policy of integration in which a new department is organized for the specific study of all matter dealing with asphyxiation.—WENDELL C. PHILLIPS, *J. A. M. A.*, May 26, 1934, p. 1798. ♦ ♦

### *Are More Doctors Needed?*

The evils of overproduction in many fields have been vehemently discussed of late. The spotlight has been turned on surpluses of cotton and corn, but little has been said of the graver menace of excess production of physicians. The Commission on Medical Education in its final report a year ago pointed out that the ratio of doctors to population was increasing. In 1933, 5,012 persons were added to the medical profession through licensure, the losses by death for the same period being approximately 3,500. The net gain, 1,500, is about 1 per cent of the number of physicians actually practicing in the United States.

According to the U. S. Census Bureau, the population in 1933 was increasing at the rate of seven tenths of 1 per cent. Since all students of the question agree that the rate of increase is diminishing and that the country is tending toward a stable population, it is evident that the medical profession is increasing faster than the general population and that,

unless the states promptly initiate measures to restrict the number of those licensed to practice medicine, a great surplus of unemployed doctors will become apparent. The social implications of such a condition would by comparison render the well known surfeit of agricultural products relatively innocuous.—*J. A. M. A.*, April 28, 1934. ♦ ♦

### *Length of the Medical Curriculum in Paris*

While various devoted reformers have been cudgeling their brains over the reform of the medical curriculum and the addition of another year of studies, it is natural to ask what is the burden, counted in time, under which the medical student already labors. A recent study by the secretariat of the Faculty of Medicine of Paris deals with the 596 medical students who qualified as doctors in 1933. It was found that 85.73 per cent had taken six years or more to qualify. There were only two who had been industrious and nimble witted enough to satisfy their examiners in as short a time as five years and two or three months. There were seventy-nine who had taken exactly six academic years, and 430 who had exceeded this limit—by how much we are not told.—Paris Letter in *Brit. M. J.*, March 17, 1934. ♦ ♦

### *Physics in Relation to Medicine*

Importance of Physics to the Progress of Medicine.—Physics has become doubly important to medicine; first, through the growth of its applications; secondly, and fundamentally, because it is essential to an understanding of other sciences, the medical importance of which has been longer recognized. Naturally, a strong



demand has developed, not only for increased preparation in mathematics and physics for the student entering the medical school, but for increased participation of physicists in medical research. While the advance of medicine in the last century may, briefly, be attributed to chemistry, biology, bacteriology and kindred sciences, the key to the future seems to be brought more and more in physical chemistry and physics. Any attempt to catalog the manifold interrelations between physics and medicine in a thorough and complete fashion would attain the proportions of a volume. The ideal to keep in mind in preparing a student to apply physics to the problems of medicine and biology is not that he be given special facility in this or that branch of physics which may seem to bear a definite relation to a particular phase of his work later on. The aim should be rather to teach the subject in sufficient generality and with sufficient thoroughness to enable the student at any time to extend his knowledge along any special branch of physics as the circumstances of his later work may require.

**Physicists for Medical Institutions.**—While more adequate training in physics for medical men in general seems essential, it must be recognized that mastery of that science cannot be expected of them, and that at present even a sound working knowledge is rather unusual. There is, therefore, urgent need for advice from trained physicists, constantly available in medical institutions, and for the cooperation of physicists as such in medical research. It is, therefore, desirable that there should be one or more physicists as part of the regular staff of such an institution. If it is connected with a university these men might be members of the department of physics. Or, if more convenient, they might form a separate group, as is usually the case with physiological chemists. But, in that

case, special care should be taken that they preserve the closest relation with the department of physics, both for the coordination of instruction and research by the two groups, and in order that the men engaged specially on medical applications of physics may keep fully up with the science as a whole. It is obviously necessary that they should remain good, progressive physicists, just as it is desirable that they should have had initially a broad sound training in pure physics rather than one that has specialized too early in existing biophysical methods.

**III. Study of Physics in Preparation for Medicine.**—The attempt to provide better instruction in physics for medical students, whether in school, college or the medical course, leads to a dilemma, between what appears to be the urgent need of more adequate preparation and serious objection to any further lengthening of the medical and premedical courses. Assuming that it would not be advisable to increase the total requirements beyond the present standards of the best medical schools, more time for physics must be sought by lessening that allotted to some other study. Institutions which require two years of biology might, perhaps, reduce this amount in view of the fact that the medical school can meet a deficiency in this better than one in physics. It is also possible that there is unnecessary repetition of similar details in the first course in chemistry and that this work might be condensed with advantage. The best way to meet the difficulty is to provide two grades of preparation in physics for the study of medicine. The vast majority must, at least for the present, be limited to the "one year of college physics" now generally required. A few, marked by special ability in mathematics and physics, but desiring to apply these to medicine, may add a second course, which might be accepted by the

medical school in lieu of some of the required biology. The committee, therefore, strongly recommends that an elective course suitable for such men should be provided and should normally be taken in the third or fourth year of a four year college course. It would be difficult to provide for this option in a two or three year college course, but if the medical school could condense some of its work in anatomy and kindred subjects, it might be possible to introduce it as an elective in the medical school. In addition to the required course and elective already mentioned, there should be provided, in the medical school, instruction in physics as directly applied to medicine as part of the duties of the physicist.—*The American Physics Teacher*, May, 1934, p. 48. ♦ ♦

#### *Test of Organized Medicine: Medical Education*

If unnecessary operations are performed, if vicious practices creep into our profession, if financial considerations instead of high principles have a voice in too many professional decisions, I believe that those responsible for the conduct of our medical colleges are not equally but more responsible for this regrettable condition than is the medical profession itself. It is not enough that we have reduced the number of our medical colleges by more than half, if those remaining are engaged in a competitive campaign of expansion, requiring more money to build greater clinics to accommodate more students that still greater clinics may be built to provide for an even larger number of students, so that these students must enter an increasingly overcrowded professional field. It is not enough to provide better training for our medical graduates if when these medical graduates enter the field of practice they must choose between starvation and sordid compromise. It is not enough that our medical schools prate

of high ideals, of cooperation and of fair play if these same schools, with clinics subsidized by endowment or by the taxpayers' money, enter into the field of private practice as competitors of their own graduates. I believe that our medical schools have three legitimate functions and only three: first, the training of the needed number of medical students; second, the advancement of medical research; and third, the cooperation with the practicing physicians in the territory the school serves in the solving of problems beyond his scope. The training of a greater number of medical students than the number needed to supply the medical needs of our populace may increase the prestige of the school, may satisfy the ambitions of its dean and faculty, but it undermines the foundations of sound medical practice and it violates every economic law. Medical research is a legitimate function of the medical school, and one which should have the whole-hearted support of the profession and the general public. We should and must look to our medical schools as centers of scientific advancement. The clinical training of our students is important, and it follows that our medical schools must be supplied with adequate clinical material for such training. This must be construed, however, to mean that the medical school should function as a private clinic; it does not justify the competitive practice of medicine by the school, nor should such practice be condoned under whatever guise it may appear.—O. J. FAY, *Iowa St. M. J.*, April, 1934. ♦ ♦

#### *Reform of Medical Education*

The reform of medical education has been under discussion for the last few years. Medical teachers, physicians and students agree that the curriculum is overloaded. The British Medical Association appointed a committee on medical education, which has now presented a

lengthy report advocating drastic reforms. The primary object of the medical curriculum is described as the production of a practitioner with the right attitude toward professional duties, ability to deal in the early days of practice with such conditions as may confront him, and such basic knowledge and mental training as will enable him to profit by experience. At the same time there should be such a coordinated course of study as will make the student an educated person and not merely a skilled technician. Throughout the curriculum, attention should be directed primarily to health and its preservation, perfection or restoration, and not to disease. The student should start the curriculum with adequate previous equipment. The curriculum should not be regarded as divided into separate blocks of study, but all subjects should be to some extent interdependent. The preliminary sciences in relation to the rest of the medical course, and also anatomy and physiology in relation to clinical study, should be continuous in their application, revision and development. There is no need to prescribe any strict uniformity of method in the application of the curriculum or in the system of teaching adopted. Indeed, it is desirable to encourage a wide liberty of choice in the different schools, provided certain broad requirements are satisfied.

Before registration, the student should be required to show a somewhat higher degree of general education than the minimum now required, and also a sufficient knowledge of physics, chemistry and the general principles of biology. His general education should include the English language and literature, a foreign language and perhaps history. The usual duration of such a course should be two academic years, within which, with average ability, he should get a thorough grounding in physics, chemistry and biology, while continuing his general educa-

tion. Representatives of the teaching profession consulted by the committee unanimously held that registration of a medical student below the age of 18 years should not be allowed.

Anatomy and physiology should be taken as interrelated subjects with reference to their subsequent clinical application and should be pursued largely in relation to the living body. During the course the student should become familiar with the methods of manual examination and be taught the use of the clinical thermometer, ophthalmoscope, laryngoscope, rhinoscope, otoscope, estimation of blood pressure, examination of the blood and analysis of secretions. Anatomy should be intimately concerned not merely with structure but with the relation of structure to function and with occasional reference to cases of impaired function as manifested clinically. At present too great demands are made on the student's time in the course on anatomy and physiology. Dissection of every part of the body is unnecessary. Dissections prepared by experts are of great value. Meticulous detail, such as the exact bony attachments of muscles and the relations of the less important arteries, veins and nerves should not be required. Similarly, as regards physiology a good deal of time might be saved by releasing the student from preparing all his own histologic sections and preparing and carrying out many laboratory experiments. On the other hand, greater attention should be given to genetics, growth and mental function, instruction in which has usually been inadequate. The first is almost a new science since the last revision of the curriculum.

Of the teaching of medicine in the schools the committee does find grounds for serious criticism. But there appears to be need for more abundant opportunity for the student to have experience with those minor operative procedures regard-

ed within the province of the general practitioner, such as the taking of blood specimens, intravenous medication, lumbar puncture and diagnostic exploration of serous cavities. It would be of great advantage if the student received as a matter of course some of the instruction given to nurses. This might be given by members of the nursing staff. How can the physician supervise the methods of nurses without practical knowledge of these? He should have full opportunities of acquiring skill in special methods of examination, such as of the fundus of the eye, the vocal cords and the ear. He should receive greater instruction in the psychoneuroses. Though these will be always with him in his daily practice as a physician, they now receive less attention than the much rarer psychoses.

Much criticism has been directed to the teaching of surgery. The student should become familiar with the diagnosis and treatment of all the common surgical diseases and injuries and have opportunities of gaining skill in the treatment of fractures and dislocations and the performance of minor operations. An acquaintance with the more common major operations is important, but the mere watching of operations in the theater is largely a waste of time. The treatment of septic conditions in their earliest stage is an essential function of the general practitioner. Therefore every student should have the experience of dealing surgically with such conditions as whitlow, carbuncle and cellulitis. The most revolutionary proposal of the committee is the revival of the apprenticeship after the passing of the final examination. This examination cannot be taken before the close of the fifth year of the curriculum. On passing it a full license to practice independently will not be granted. This can be obtained only after a further period of clinical experience under supervision that would normally extend to nine

months and never be less than six. This period might be occupied (1) in a resident appointment in a teaching or other hospital, (2) as a clinical assistant in an approved hospital or clinic, (3) as pupil assistant to an approved general practitioner or (4) in regular attendance at hospital practice in a medical school.—*LONDON LETTER, J. A. M. A., May 26, 1934, p. 1772.*

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#### *Overstandardization in Medical Schools*

There is a good deal of overstandardization in medical schools. Teachers should stress more the essentials and fundamentals. Somewhere in the undergraduate course there should be not an opportunity for a man to do intensive work on some one subject, but he should be compelled to do it. Many medical graduates do not know the meaning of the word "thorough"; but when a man has gotten away from his textbooks and has been forced to look at monographs and original articles and to look in the laboratory at the section under the microscope and to attend the postmortem and has gone as deeply into the subject as the time and opportunity will permit, he is a far safer man in the community than the man that we have to dub "mediocre," who is versed simply in the essentials. I know of no more dangerous man in the community than the mediocre practitioner who does not know his own limitations, who does not know the limitations of method, the dangers and limitations of an operation. The third requirement is that the practitioner should be qualified in the art of medicine, his ability to apply knowledge, which he learns by experience at the bedside. I have no quarrel with the research man; but practitioners are not going to learn how to practice in the research laboratory or in the library. The best textbook for the practitioner of medicine is the patient.—*JAS. B. HERRICK, J. A. M. A., March 31, 1934.*

## Book News

### *One Hour of Medical History*

Compiled by Benjamin Spector, professor of Anatomy, Tufts College Medical School. Vol. III, 1934. The Beacon Press, Inc., Boston.

Depicts the third in a series of medical pageants in which members of the student body take the parts of well known personages who have contributed to make medical history. The great masters of medicine are brought back to life so that they can be both "seen" and "heard." These pageants are annual events. The present one goes back to the dawn of medicine, to the mythical figures of Imhotep and Asculapius. It introduces the leaders of Greek medicine, Hippocrates and Chrysippus, and in a series of sketches brings one down to the days of Darwin and Roentgen. The series portrays eighteen personages. The student participants are chosen from the second, third and fourth year classes. Each student presents a short biographic sketch of the character he represents—and dresses for the part.

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### *Principles of Gynecology*

By William Blair-Bell, M. D., F. R. C. S., F. C. O. G., Hon. F. A. C. S., emeritus professor of obstetrics and gynecology, University of Liverpool. 4th Ed. William Wood & Company, Baltimore. 1934. Price, \$10.

A thoroughly concise and practical single volume textbook presenting in the main the author's personal experiences, observations and opinions. The book has undergone a complete revision, especially the sections dealing with internal secretions, endometromata, ovarian neoplasms, and the nature and treatment of

malignant disease. New sections include a short historical introduction, a discussion of ethical and medicolegal questions, also sociological problems, including contraception, have received consideration. The scope and arrangement has not been changed, but there are 170 more pages, 107 more illustrations, and 5 more color plates than in the third edition.

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### *Urinary Analysis and Diagnosis by Microscopic and Chemical Examination*

By Louis Heitzmann, M. D., formerly Professor of Pathology and Bacteriology in Fordham University School of Medicine. 6th Ed. William Wood & Company, Baltimore. 1934. Price, \$5.

Only those tests are given which can be carried out by the general laboratory worker and by the practitioner, without the necessity of a completely equipped chemical laboratory. Greatest stress is laid on the microscopic examination and especially the microscopic diagnosis.

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### *Practical Methods in Biochemistry*

By Frederick C. Koch, Professor of Physiological Chemistry in the University of Chicago. William Wood & Company, Baltimore. 1934. Price, \$2.25.

A laboratory manual intended to present to medical students the more important qualitative and quantitative chemical aspects of cell constituents, of cell activities and of the composition of the blood, secretions and excretions.

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### *Demonstrations of Physical Signs in Clinical Surgery*

By Hamilton Bailey, F. R. C. S. (Eng.) 4th Ed. William Wood & Company, Baltimore. 1933. Price, \$6.50.

This work emphasizes the well known but often disregarded axiom that the history and physical methods of examination, not tests, must always remain the main channels by which a diagnosis is made. Every student should have—and use—one of these books.

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*Bergey's Manual  
of Determinative Bacteriology*

A key for the identification of organisms of the class schizomycetes. By David H. Bergey, assisted by a Committee of the Society of American Bacteriologists. 4th Ed. Williams & Wilkins Company, Baltimore, 1934. Price, \$6.

An indispensable work for the bacteriologist.

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*The Human Body: Its Structure  
and Activities and the Conditions  
of Its Healthy Working*

By H. Newell Martin, late Professor of Physiology in Johns Hopkins University. 12th Ed. Revised by Ernest G. Martin, Professor of Physiology in Stanford University. Henry Holt and Company, New York. Price, \$4.

Students preparing for the study of medicine will find this book most helpful. The medical student will like it for review purposes or as a refresher.

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*Handbook of Therapeutics*

By David Campbell, M. C., M. D., Regius Professor of Materia Medica and Therapeutics, University of Aberdeen. 2nd Ed. William Wood & Company, Baltimore. 1934. Price, \$4.75.

A really practical handbook on treatment by a teacher and practitioner who realizes that the medical curriculum too often leaves graduates high and dry as to just what to do after the diagnosis has been reached. It does not aim to hand out a cut and dried sure-shot method for treating most any kind of case, but it is

strong on principles and gives plenty of definite guidance, including some prescriptions.

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*Obstetric Medicine:  
Diagnosis and Management  
of the Common Diseases in  
Relation to Pregnancy*

Edited by Fred L. Adair, Professor of Obstetrics and Gynecology and Chairman of the Department, University of Chicago, and Edward J. Stieglitz, Assistant Clinical Professor of Medicine, University of Chicago. Lea & Febiger, Philadelphia. 1934. Price, \$8.

This compilation coordinates and correlates the medical knowledge of a group of distinguished contributors concerning the problems of diagnosis, therapy and prognosis of disease occurring coincidentally with pregnancy. Its material is of common interest and importance to all who practice medicine, whether they are specialists or general practitioners. It will be a distinct aid in the management of obstetrical patients.

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*Chemistry of the Hormones*

By Benjamin Harrow, Ph. D., Associate Professor, College of the City of New York, and Carl P. Sherwin, D. Sc., M. D., D. P. H. Williams & Wilkins Company, Baltimore. 1934. Price, \$15.

Primarily designed for the use of the laboratory worker who desires to prepare active hormone fractions, and for the student who wants a clear connected account of the chemical characteristics of the hormones in so far as they are known at present.

There are many references to the physiological and clinical properties of the hormones which will be of interest to the physician, who realizes the growing importance of a thorough knowledge and understanding of endocrinology in modern medical practice.



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